

| | | | | | | | | | | |
|---|------|---|--|--|---------------|---|----------------|--|---------------|--|
| SOLICITATION, OFFER AND AWARD | | | | 1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) | | RATING DO-A20 | | PAGE OF PAGES 1 63 | | |
| 2. CONTRACT NO. | | 3. SOLICITATION NO. N00174-02-R-0048 | | 4. TYPE OF SOLICITATION [] SEALED BID (IFB) [X] NEGOTIATED (RFP) | | 5. DATE ISSUED 12 Dec 2002 | | 6. REQUISITION/PURCHASE NO. 0002 | | |
| 7. ISSUED BY NAVSEA INDIAN HEAD 101 STRAUSS AVE. ATTN: BRENDA PRICE 1143B PRICEBL@IH. NAVY.MIL INDIAN HEAD MD 20640-5035 | | | | CODE N00174 | | 8. ADDRESS OFFER TO (If other than Item 7) See Item 7 | | CODE TEL: FAX: | | |
| NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder". | | | | | | | | | | |
| SOLICITATION | | | | | | | | | | |
| 9. Sealed offers in original and 1 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in Building 1558 until 15 00 local time 13 Jan 2003 (Hour) (Date) | | | | | | | | | | |
| CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation. | | | | | | | | | | |
| 10. FOR INFORMATION CALL: | | A. NAME BRENDA PRICE | | B. TELEPHONE (Include area code) (NO COLLECT CALLS) 301/744-6570 | | C. E-MAIL ADDRESS pricebl@ih.navy.mil | | | | |
| 11. TABLE OF CONTENTS | | | | | | | | | | |
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| X | A | SOLICITATION/ CONTRACT FORM | | | 1 | X | I | CONTRACT CLAUSES | | |
| X | B | SUPPLIES OR SERVICES AND PRICES/ COSTS | | | 2 | PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS | | | | |
| X | C | DESCRIPTION/ SPECS./ WORK STATEMENT | | | 5 | X | J | LIST OF ATTACHMENTS | | |
| X | D | PACKAGING AND MARKING | | | 11 | PART IV - REPRESENTATIONS AND INSTRUCTIONS | | | | |
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| X | H | SPECIAL CONTRACT REQUIREMENTS | | | 23 | X | M | EVALUATION FACTORS FOR AWARD | | |
| OFFER (Must be fully completed by offeror) | | | | | | | | | | |
| NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period. | | | | | | | | | | |
| 12. In compliance with the above, the undersigned agrees, if this offer is accepted within calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule. | | | | | | | | | | |
| 13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52.232-8) | | | | | | | | | | |
| 14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated): | | | | | AMENDMENT NO. | | DATE | | AMENDMENT NO. | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| 15A. NAME AND ADDRESS OF OFFEROR | | CODE | | FACILITY | | 16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print) | | | | |
| 15B. TELEPHONE NO (Include area code) | | <input type="checkbox"/> | | 15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE. | | 17. SIGNATURE | | 18. OFFER DATE | | |
| AWARD (To be completed by Government) | | | | | | | | | | |
| 19. ACCEPTED AS TO ITEMS NUMBERED | | 20. AMOUNT | | 21. ACCOUNTING AND APPROPRIATION | | | | | | |
| 22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c)() <input type="checkbox"/> 41 U.S.C. 253(c)() | | | | 23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified) | | | ITEM | | | |
| 24. ADMINISTERED BY (If other than Item 7) CODE | | | | 25. PAYMENT WILL BE MADE BY CODE | | | | | | |
| 26. NAME OF CONTRACTING OFFICER (Type or print) | | | | 27. UNITED STATES OF AMERICA (Signature of Contracting Officer) | | | 28. AWARD DATE | | | |
| IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice. | | | | | | | | | | |

SECTION B Supplies or Services and Prices

LOT I – BASIC REQUIREMENT

| ITEM NO | SUPPLIES/SERVICES | MAX QUANTITY | UNIT | UNIT PRICE | MAX AMOUNT |
|---------|---|-----------------|------|------------|------------|
| 0001 | Mk 73 MOD 0 Fuze Boosters in accordance with drawing 6503332, Statement of Work (SOW) and WS 32616. | | | | |
| 0001AA | First Article, same as item 0001. | 30 | Each | \$_____ | \$_____ |
| 0001AB* | Production Quantity (same as item 0001). Contractor shall produce 218 each, 30 to be consumed in item 0001AD. | 218 | Each | \$_____ | \$_____ |
| 0001AC* | Production Quantity - First Article Waived (same as item 0001). Contractor shall produce 218 each, 30 each to be consumed in item 0001AD. | 218 | Each | \$_____ | \$_____ |

***The Government will award either Contract Line Item Number 0001AB or 0001AC, but not both.**

| | | | | | |
|--------|------------------------------|---|-----|---------|---------|
| 0001AD | Lot Acceptance Testing (LAT) | 1 | Lot | \$_____ | \$_____ |
|--------|------------------------------|---|-----|---------|---------|

| ITEM NO | SUPPLIES/SERVICES | MAX QUANTITY | UNIT | UNIT PRICE | MAX AMOUNT |
|---------|--|-----------------|------|------------|------------|
| 0002 | Data in accordance with Section J, DD Form 1423. | | Lot | NSP | NSP |

LOT II – OPTION I

| ITEM NO | SUPPLIES/SERVICES | MAX QUANTITY | UNIT | UNIT PRICE | MAX AMOUNT |
|---------|---|-----------------|------|------------|------------|
| 0003 | Mk 73 MOD 0 Fuze Boosters in accordance with drawing 6503332, SOW and WS 32616. | | | | |
| 0003AA | Production Quantity (same as item 0003). | MIN 206 | Each | \$ | \$ |
| | 30 to be consumed in item 0003AB. | MAX 314 | Each | \$ | \$ |
| 0003AB | Lot Acceptance Testing | 1 | Lot | \$_____ | \$_____ |
| 0004 | Data in accordance with Section J, DD Form 1423. | | Lot | NSP | NSP |

LOT III – OPTION II

| ITEM NO | SUPPLIES/SERVICES | MAX QUANTITY | UNIT | UNIT PRICE | MAX AMOUNT |
|---------|---|--------------------|--------------|------------|------------|
| 0005 | Mk 73 MOD 0 Fuze Boosters in accordance with drawing 6503332, SOW and WS 32616. | | | | |
| 0005AA | Production Quantity (same as item 0005). 30 to be consumed in item 0005AB. | MIN 206 MAX 314 | Each Each | \$ \$ | \$ \$ |
| 0005AB | Lot Acceptance Testing | 1 | Lot | \$_____ | \$_____ |
| 0006 | Data in accordance with Section J, DD Form 1423. | | Lot | NSP | NSP |

SECTION C Descriptions and Specifications

CLAUSES INCORPORATED BY FULL TEXT

STATEMENT OF WORK
FOR
MK 73 MOD 0 FUZE BOOSTER

1.0 INTRODUCTION

1.1 This Statement of Work (SOW) specifies the requirements for fabrication and delivery of MK 73 MOD 0 Fuze Boosters.

1.2 The MK 73 MOD 0 Fuze Boosters are used in Navy guided missiles.

2.0 SCOPE

2.1 The manufacturer shall provide all resources necessary, except those designated as government furnished material, to manufacture, inspect, and test MK 73 MOD 0 Fuze Boosters in accordance with the documents specified herein and deliver them to the destination and within the timeframe specified herein.

3.0 REFERENCE DOCUMENTS

DATA ITEM DESCRIPTIONS

The following data item descriptions shall be used as a guide only

DI-QCIC-81110 Inspection and Test Plan

DI-NDTI-80809B Test/Inspection Report

DI-CMAN-80858A Contractor's Configuration Management Plan

DI-CMAN-80639 Engineering Change Proposal

DI-CMAN-80640 Request for Deviation

DI-CMAN-80641 Request for Waiver

DI-CMAN-80642 Notice of Revision

DI-MISC-80043A Ammunition Data Card

SPECIFICATIONS

NAVAL SEA SYSTEMS COMMAND

WS 32616 21 Oct 88 Critical Item Product Fabrication Specification

| | | |
|-------|-----------|---|
| SCN 1 | 20 Feb 91 | Approved change to above document |
| SCN 2 | 27 Jun 91 | Approved change to above document |
| SCN 3 | 4 Nov 93 | Approved change to above document |
| SCN 4 | 22 Mar 95 | for dent block config change |
| SCN 5 | 24 Nov 98 | to include Block IIIA,IIIB,IV Flight Vibration Levels |

STANDARDS

Military

MIL-STD-973 13 Jan 95 Configuration Management

MIL-STD-1168 B 10 Jun 98 Ammunition Lot Numbering

ANSI/ASQC 9002-1994 18 Jul 94 Quality Systems-Model for Quality Assurance in Production, Installation And Servicing or Equivalent

ANSI/ISO-10012-1 1992 Quality Assurance Requirements for Equipment – Part 1
or

ANSI/NCSL-Z540-1-1994 27 Jul 1994 General Requirements Lab & Measuring & Test Equipment

OTHER

Drawings

| | |
|-----------|---|
| 1635922 E | Lead, Explosive, MK 8 MOD 0 Assembly (for testing) |
| 3300320 B | Lead, Explosive, MK 12 MOD 2 Assembly (for testing) |
| 6213952 - | Nameplate for container |
| 6503332 E | Booster, Fuze Assembly, MK 73 MOD 0 |
| 6503333 A | Plate, Identification |
| 6503334 D | Sleeve, Booster |
| 6503335 A | Vibration Isolator Assembly |
| 6503336 C | Housing, Pellet |
| 6503337 C | Container Shipping and Storage Booster, Fuze |
| 6503338 D | Container Shipping and Storage Booster, Fuze |
| 6503339 C | Frame, Vibration Isolator |
| 6503340 B | Ring, Vibration Isolator |
| 6503341 C | Holder |
| 6503342 B | Bag, Barrier |
| 6503343 A | Shield, Booster, Electrostatic |

| | |
|------------|---|
| 6503344 - | Pellet |
| 6503345 - | Closure, Housing |
| 6503346 - | Ring, Retaining |
| 6503347 - | Elastomer, Silicone |
| 6503348 A | Dunnage |
| 6503349 A | Filler |
| 6503351 A | Dunnage |
| 4.4.1.1.1d | WS 32616 Exploding Bridgewire Detonator |
| SA2875551 | Vibration Test Adapter |
| SA6503340 | Block, Test Initiation |

Associated Lists

256003 LD Ammunition Component Box MK 2 MOD 0

Note: Drawing 6503332 shall take precedence over WS 32616 Figure 1. Also, all notices of revision (NOR) will be included with TDP.

4.0 REQUIREMENTS

4.1 General

4.1.2 The manufacturer shall maintain continuous production processing without breaks exceeding six months.

4.1.3 The manufacturer shall impose quality requirements of ANSI/ASQC 9002 or equivalent on major commercial sub-contractors.

4.1.4 The manufacturer shall flow down requirements specified herein to sub-contractors, vendors and suppliers.

4.1.5 The manufacturer shall submit to yearly evaluations by a government team to assess contract performance. The government team shall contain approximately four personnel, and the evaluation is to last for about four weekdays.

4.1.6 MK 73 MOD 0 Fuze Boosters shall be inspected and accepted at the source, using government approved inspection and acceptance plans.

4.1.7 All first article and lot acceptance testing will be performed by the contractor. WS 32616, Critical Item Product Fabrication Specification for Booster, Fuze, MK 73 MOD 0, provides guidance on First Article and Lot Acceptance Testing.

4.1.8 The contractor shall fabricate fuze boosters to meet the requirements of the applicable documentation. See Section B of contract for quantities.

4.2 Certification

4.2.1 The manufacturer shall establish, maintain and implement a controlled quality system conforming to

ANSI/ASQC 9002 or equivalent, and calibration system conforming to ANSI/ISO-10012-1 or ANSI/NCSL-Z540-1 or equivalent and submitted with the applicable CDRL, DD 1423, for government approval.

4.2.2 Changes to the production processes, batch size, procedures, or equipment which, in the opinion of the procuring activity, could significantly affect product characteristics, and may require partial or full requalification. Contractor is obligated to notify the government when such changes are considered.

4.3 Configuration Control

4.3.1 The manufacturer shall exhibit, maintain, and implement a configuration management system in accordance with MIL-STD-973.

4.3.2 The manufacturer shall submit requests for engineering change proposals (ECPs), requests for waiver (RWFs) and requests for deviation (RFDs) per MIL-STD-973. The original and one copy shall be submitted to Naval Air Warfare Center, China Lake, California, Attn: Code 47G900D and one copy to Naval Surface Warfare Center Indian Head Division, Code 4220.

4.4 Government Furnished Material (GFM)

12 Meter Drop Fixture
RDX Comp CH-6 MIL-C-21723 120% of Production Req, Explosive
MK 2 MOD 0 Containers* 120 % of Production Req, Transporting

* Dunnage to pack fuze boosters in the containers will be provided by the contractor.

4.5.1 MK 73 MOD 0 Fuze Boosters shall be packaged 36 per container in accordance with Drawing 6503337.

4.5.2 Fuze Booster packing and packaging shall be marked in accordance with Drawing 6503337. The manufacturer will not be responsible for shipping costs.

5.0 REQUIRED DATA

5.1.1 The manufacturer shall provide ammunition data cards per MIL-STD-1168B and include all components. An original shall be packaged with the fuze booster, and a copy shall be delivered to Naval Surface Warfare Center Indian Head Division Code 4220 and to Naval Warfare Assessment Division (NWAD), Attn: Code QA-43, Corona, California 91718-5000 (see respective CDRL, section J of the contract).

5.1.2 The manufacturer shall report the contracts status and progress made on a monthly basis. Using Production Progress Report (DD Form 375) is recommended. The following shall be used and may be formatted in the manufacturer's format.

Contractor will supply DI-QCIC-81110, Inspection and Test Plan, in accordance with data item A001.

Contractor will supply DI-NDTI-80809B, Test/Inspection Report, in accordance with data item A002.

Contractor will supply DI-CMAN-80858A, Contractor's Configuration Management Plan, in accordance with data item A003.

Contractor will supply DI-CMAN-80639, Engineering Change Proposal, in accordance with data item A004.

Contractor will supply DI-CMAN-80640, Request for Deviation, in accordance with A005.

Contractor will supply DI-CMAN-80641, Request for Waiver, in accordance with A006.

Contractor will supply DI-CMAN-80642, Notice of Revision, in accordance with A007.

Contractor will supply DI-CMAN-80043, Ammunition Data Card, in accordance with A008.

SEA C-1 - DATA REQUIREMENTS (NAVSEA) (SEP 1992)

The data to be furnished hereunder shall be prepared in accordance with the Contract Data Requirements List, DD Form 1423, Exhibit(s) A, attached hereto.

HQ C-2-0014 CONTRACTOR'S PROPOSAL (NAVSEA) (MAR 2001)

(a) Performance of this contract by the Contractor shall be conducted and performed in accordance with detailed obligations to which the Contractor committed itself in

Proposal _____ dated _____ in response to NAVSEA Solicitation No. N00174-_____
_____.

(b) The technical volume(s) of the Contractor's proposal is incorporated by reference and hereby made subject to the provisions of the "ORDER OF PRECEDENCE" (FAR 52.215-8) clause of this contract. Under the "ORDER OF PRECEDENCE" clause, the technical volume of the Contractor's proposal referenced herein is hereby designated as item (f) of the clause, following "the specification" in the order of precedence.

HQ C-2-0026 - FIRST ARTICLE (CONTRACTOR TESTING) (NAVSEA) (SEP 1990)

(a) For the purpose of this contract, the "First Article" is synonymous with the terms "pre-production model(s) and "pre-production equipment".

(b) The First Article shall conform in every respect to the requirements of this contract and shall be fully tested by the Contractor at its own expense to determine compliance with said requirements. The production equipment shall be manufactured with tools, material and methods which are the same as or representative of the tools, material and methods which were used to manufacture the First Article.

(c) Pursuant to paragraph (e) of the clause entitled "FIRST ARTICLE APPROVAL--CONTRACTOR TESTING" (FAR 52.209-3), the First Article shall not be delivered as part of the production quantity.

HQ C-2-0038 - PERMITS AND RESPONSIBILITIES (NAVSEA) (SEP 1990)

The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any applicable Federal, State, and Municipal laws, codes, and regulations, in connection with any movement over the public highways of overweight/over dimensional materials.

SEA C-52 - WAIVER OF FIRST ARTICLE REQUIREMENTS (NAVSEA) (SEP 1990)

If the First Article is waived by the Government, the Contractor shall deliver supplies that are identical or substantially identical to those previously accepted by the Government under the following contract(s):

Contract(s) _____

(Offeror to fill in contract number(s), as applicable. See Section M)

SEA C-81 - UPDATING SPECIFICATIONS AND STANDARDS (NAVSEA) (AUG 1994)

If, during the performance of this or any other contract, the contractor believes that any contract contains outdated or different versions of any specifications or standards, the contractor may request that all of its contracts be updated to include the current version of the applicable specification or standard. Updating shall not affect the form, fit or function of any deliverable item or increase the cost/price of the item to the Government. The contractor should submit update requests to the Procuring Contracting Officer with copies to the Administrative Contracting Officer and cognizant program office representative for approval. The contractor shall perform the contract in accordance with the existing specifications and standards until notified of approval/disapproval by the Procuring Contracting Officer. Any approved alternate specifications or standards will be incorporated into the contract.

SECTION D Packaging and Marking

CLAUSES INCORPORATED BY FULL TEXT

252.227-7026 DEFERRED DELIVERY OF TECHNICAL DATA OR COMPUTER SOFTWARE
(APR 1988)

The Government shall have the right to require, at any time during the performance of this contract, within two (2) years after either acceptance of all items (other than data or computer software) to be delivered under this contract or termination of this contract, whichever is later, delivery of any technical data or computer software item identified in this contract as "deferred delivery" data or computer software. The obligation to furnish such technical data required to be prepared by a subcontractor and pertaining to an item obtained from him shall expire two (2) years after the date Contractor accepts the last delivery of that item from that subcontractor for use in performing this contract.

(End of clause)

HQ D-2-0004 - IDENTIFICATION MARKING OF PARTS (NAVSEA) (NOV 1996)

Identification marking of individual parts within the systems, equipments, assemblies, subassemblies, components, groups, sets or kits, and of spare and repair parts shall be done in accordance with applicable specifications and drawings. To the extent identification marking of such parts is not specified in applicable specifications or drawings, such marking shall be accomplished in accordance with the following:

- (1) Parts shall be marked in accordance with generally accepted commercial practice.
- (2) In cases where parts are so small as not to permit identification marking as provided above, such parts shall be appropriately coded so as to permit ready identification.

**IHD 2 EXPLOSIVE OR HAZARDOUS MATERIALS – PACKAGING & LABELING
(NAVSEA IHD)**

- (a) Packaging, Packing, Marking and Labeling of Explosive materials to be shipped by any mode or combination of transportation modes shall be prepared (properly classed, described, packaged, marked, labeled, placarded, etc) for shipment in accordance all applicable Department of Transportation/Department of Defense regulations in effect at time of shipment.
- (b) In the event of a conflict between specific requirements in the contract or order and existing applicable regulations, the regulations take precedence. Under no circumstance shall the contractor knowingly use materials, markings or procedures that are not in accordance with law and regulations applicable to the mode of transportation employed.

| Mode of Transportation | Applicable Regulation |
|------------------------------|-----------------------|
| 1. Domestic Highway | A |
| 2. Domestic Commercial Air | A, B |
| 3. Export Surface | A, C, E |
| 4. Export Commercial Air | A, B, E |
| 5. Export Military Air (MAC) | D, E |

List of Regulations

- A. Code of Federal Regulations Title 49
- B. International Air Transport Association (IATA) Dangerous Goods Regulation

- C. International Maritime Organization (IMO) Dangerous Goods Regulation
 - D. Air Force Joint Manual (AFJAM) Preparation of Hazardous Materials for Military Air Shipment
 - E. Export shipments are also subject to the domestic regulations indicated to transport the material to the port of embarkation (POE).
- (c) Markings listed below are a minimum for acceptance of the material:
- 1. Proper Shipping Name, UN Number, Name and Address of Shipper and Consignee as required by all the above regulations.
- (d) Additional Required Markings for EXPLOSIVE Material
(To be completed by Contracting from Tech Data Package Information):
- 1. National Stock Number _____ or
Local Stock Number _____
 - 2. Material Item Nomenclature
 - 3. Lot # / Quantity contained in this package
 - 4. Net Explosive Weight / Gross Weight of Package
- (e) A packing list must be placed on the outside of the package with the shipping papers (i.e. DD 250, DD 1149, etc) enclosed. The shipping papers must include the technical point of contact at Destination for Delivery. All other documentation should be placed in a separate packing list.

TECHNICAL POINT OF CONTACT FOR DELIVERY:
(To be completed by Contracting from Tech Data Package Information)

NAME: _____
CODE: _____
PHONE NUMBER: (301) 744 - _____

IHD 30 - HAZARDOUS MATERIALS (NAVSEA/IHD) FEB 2000

- (a) Packaging, Packing, Marking and Labeling Hazardous materials to be shipped by any mode or combination of transportation modes shall be prepared (properly classed, described, packaged, marked, labeled, transport vehicle placarded, etc.) for shipment in accordance with MIL and all applicable government and carrier regulations in effect at time of shipment.
- (b) In the event of a conflict between specific requirements in the contract or order and existing applicable regulations, the regulations take precedence. Under no circumstances shall the contractor knowingly use materials, markings or procedures which are not in accordance with laws and regulations applicable to the mode of transportation employed.

| TYPE OF SHIPMENT REGULATIONS | APPLICABLE |
|---------------------------------|------------|
| 1. Domestic | A |
| 2. Domestic Air Commercial | A, B, C |
| 3. Domestic Air Military | A, F |
| *4. Export Surface | A, E, G |
| *5. Export Air Commercial | A, D, G |
| *6. Export Air Military (MAC) | F, G |

LIST OF REGULATIONS

A. Code of Federal Regulations Title: 49 Transportation Parts 100

- B. Official Air Transport Restricted Articles Tariff No. 6C.A.B. 82
- C. Official Air Transport Restricted Articles Circular No. 6
- D. International Air Transport Association Restricted Articles Regulations
- E. International Maritime Dangerous Goods Code
- F. Air Force Joint Manual (AFJM) 24Preparation of Hazardous Materials for Military Air Shipment
- *G. Export shipments are also subject to the domestic regulations indicated to the port of embarkation.

SECTION E Inspection and Acceptance

CLAUSES INCORPORATED BY REFERENCE:

| | | |
|--------------|--|----------|
| 52.246-2 | Inspection Of Supplies--Fixed Price | AUG 1996 |
| 52.246-16 | Responsibility For Supplies | APR 1984 |
| 252.246-7000 | Material Inspection And Receiving Report | DEC 1991 |

CLAUSES INCORPORATED BY FULL TEXT

SEA E-3 - INSPECTION AND ACCEPTANCE LANGUAGE FOR F.O.B. ORIGIN (NAVSEA)

Item(s) 0001, 0003, and 0004 - Inspection and acceptance shall be made at source by a representative of the cognizant Contract Administration Office.

SEA E-4 - INSPECTION AND ACCEPTANCE LANGUAGE FOR DATA

Inspection and acceptance of all data shall be as specified on the attached Contract Data Requirements List(s), DD Form 1423.

SECTION F Deliveries or Performance

CLAUSES INCORPORATED BY REFERENCE:

| | | |
|-----------|--|----------|
| 52.211-17 | Delivery of Excess Quantities | SEP 1989 |
| 52.242-15 | Stop-Work Order | AUG 1989 |
| 52.242-17 | Government Delay Of Work | APR 1984 |
| 52.247-29 | F.O.B. Origin | JUN 1988 |
| 52.247-30 | F.O.B. Origin, Contractor's Facility | APR 1984 |
| 52.247-55 | F.O.B. Point For Delivery Of Government-Furnished Property | APR 1984 |

CLAUSES INCORPORATED BY FULL TEXT

PLACE OF DELIVERY: ORIGIN

(A) THE ARTICLES TO BE FURNISHED HEREUNDER SHALL BE DELIVERED IN ACCORDANCE WITH FAR 52.247-29 "F.O.B. ORIGIN", FREE OF EXPENSE TO THE GOVERNMENT AT THE GOVERNMENT'S OPTION, F.O.B. CARRIER'S EQUIPMENT WHARF, OR FREIGHT STATION LOCATED AT OR NEAR

(1) _____
(OFFEROR MUST INSERT SHIPPING POINT INCLUDING STREET ADDRESS, CITY, STATE AND ZIP CODE.)

(2) _____
(OFFEROR MUST INSERT EXACT LOCATION OF PRIVATE SIDING OR NEAREST RAIL TERMINAL FROM WHICH RAIL SHIPMENT WILL BE MADE TOGETHER WITH THE NAME OF THE SERVING RAILROAD)

NOTE: excess freight costs due to contractors unauthorized shipment on a commercial bill of lading rather than a Government Bill of Lading, if available, will be charged to the contractor.

| <u>Item No.</u> | <u>RMSC</u> | <u>RMSC</u> <u>(FMS)</u> |
|-----------------|-------------|-----------------------------|
| 0001AB or C | 154 | 64 |
| 0003AA | TBD | TBD |
| 0004AA | TBD | TBD |

TBD means to be determined. All first article and lot acceptance testing will be performed by the contractor. All transportation costs will be paid by the government. This is a Freight on Board (FOB) Origin Contract.

The 64 MK 73 Fuze Boosters from line item 0001AA that go to Raytheon Missile System Company (RMSC) AUR Facility for foreign military sales (FMS) use the

following transportation accounting code (TAC) numbers: 64 each for FMS Case

KS-P-AH using TAC number P777. All of the other items are for US Navy requirements and use TAC N160.

Delivery address is follows:

(a) Raytheon Missile System Company AUR Facility, Airport Industrial Complex,
H100 Wilson Road, East Camden, AR 71701 (UIC Q79257)

S. Davis, commercial (870) 574-5410

52.211-8 TIME OF DELIVERY (JUN 1997)

(a) The Government requires delivery to be made according to the following schedule:

REQUIRED DELIVERY SCHEDULE

| CLINS | DELIVERY DATE | UNIT OF ISSUE | QUANTITY | FOB | SHIP TO ADDRESS |
|--------|--|---------------|----------------------|--------|--|
| 0001AA | 180 days APO* | Each | 30 | Origin | Raytheon Missile System Company AUR Facility Airport Industrial Complex Attn: S. Davis H100 Wilson RD. East Camden, AR 71701 |
| 0001AB | 180 days after First Article Test | Each | 218 | Origin | Raytheon Missile System Company AUR Facility Airport Industrial Complex Attn: S. Davis H100 Wilson RD. East Camden, AR 71701 |
| 0001AC | 180 days APO | Each | 218 | Origin | Raytheon Missile System Company AUR Facility Airport Industrial Complex Attn: S. Davis H100 Wilson RD. East Camden, AR 71701 |
| 0001AD | 180 days APO | Lot | 1 | Origin | Raytheon Missile System Company AUR Facility Airport Industrial Complex Attn: S. Davis H100 Wilson RD. East Camden, AR 71701 |
| 0002 | In accordance with Section J, DD Form 1423 | Lot | 1 | Origin | In accordance with Section J, DD Form 1423 |
| 0003AA | 180 days AEO* | Each | Min. 206 Max. 314 | Origin | Raytheon Missile System Company AUR Facility Airport Industrial Complex Attn: S. Davis H100 Wilson RD. East Camden, AR 71701 |

| | | | | | |
|--------|--|------|----------------------|--------|--|
| 0003AB | 180 days APO | Lot | 1 | Origin | Raytheon Missile System Company AUR Facility Airport Industrial Complex Attn: S. Davis H100 Wilson RD. East Camden, AR 71701 |
| 0004 | In accordance with Section J, DD Form 1423 | Lot | 1 | Origin | In accordance with Section J, DD Form 1423 |
| 0005AA | 180 days AEO* | Each | Min. 232 Max. 383 | Origin | Raytheon Missile System Company AUR Facility Airport Industrial Complex Attn: S. Davis H100 Wilson RD. East Camden, AR 71701 |
| 0005AB | 180 days APO | Lot | 1 | Origin | Raytheon Missile System Company AUR Facility Airport Industrial Complex Attn: S. Davis H100 Wilson RD. East Camden, AR 71701 |
| 0006 | In accordance with Section J, DD Form 1423 | Lot | 1 | Origin | In accordance with Section J, DD Form 1423 |

*APO – After Placement of Order

*AEO – After Exercise of Option

| OFFEROR'S PROPOSED DELIVERY SCHEDULE | | |
|--------------------------------------|----------|---------------------------------------|
| ITEM NO. | QUANTITY | WITHIN DAYS AFTER DATE OF CONTRACT |

(b) Attention is directed to the Contract Award provision of the solicitation that provides that a written award or acceptance of offer mailed, or otherwise furnished to the successful offeror, results in a binding contract. The Government will mail or otherwise furnish to the offeror an award or notice of award not later than the day award is dated. Therefore, the offeror should compute the time available for performance beginning with the actual date of award, rather than the date the written notice of award is received from the Contracting Officer through the ordinary mails. However, the Government will evaluate an offer that proposes delivery based on the Contractor's date of receipt of the contract or notice of award by adding (1) five calendar days for delivery of the award through the ordinary mails, or (2) one working day if the solicitation states that the contract or notice of award will be transmitted electronically. (The term "working day" excludes weekends and U.S. Federal holidays.) If, as so computed, the offered delivery date is later than the required delivery date, the offer will be considered nonresponsive and rejected.

(End of Clause)

252.223-7003 CHANGE IN PLACE OF PERFORMANCE - AMMUNITION AND

EXPLOSIVES (DEC 1991)

(a) The Offeror shall identify, in the "Place of Performance" provision of this solicitation, the place of performance of all ammunition and explosives work covered by the Safety Precautions for Ammunition and Explosives clause of this solicitation. Failure to furnish this information with the offer may result in rejection of the offer.

(b) The Offeror agrees not to change the place of performance of any portion of the offer covered by the Safety Precautions for Ammunition and Explosives clause contained in this solicitation after the date set for receipt of offers without the written approval of the Contracting Officer. The Contracting Officer shall grant approval only if there is enough time for the Government to perform the necessary safety reviews on the new proposed place of performance.

(c) If a contract results from this offer, the Contractor agrees not to change any place of performance previously cited without the advance written approval of the Contracting Officer.

(End of clause)

SECTION G Contract Administration Data

CLAUSES INCORPORATED BY REFERENCE:

252.242-7000 Postaward Conference

DEC 1991

CLAUSES INCORPORATED BY FULL TEXT

IHD 6 CONTRACT POINTS OF CONTACT (NAVSEA/IHD)

The following contacts are provided for this contract:

| | |
|---------------------------|-----------------|
| Contract Administrator: | Joan Mason |
| Phone Number: | (301)744-6677 |
| Payments/Invoicing: | Billie Hutchins |
| Phone Number: | (301)744-6420 |
| Technical Representative: | Ed O'Conner |
| Phone Number: | (301)744-1444 |

Any concerns regarding your contract, should be directed to the above mentioned personnel, or the Contracting Officer Renee Brown at (301) 744-6653.

IHD 76 - INDIAN HEAD DIVISION, NAVAL SEA SYSTEMS COMMAND, HOURS OF OPERATION AND HOLIDAY SCHEDULE (NAVSEA/IHD) FEB 2000

1. The policy of this station is to schedule periods of reduced operations or shutdown during holiday periods. Deliveries will not be accepted on Saturdays, Sundays or Holidays except as specifically requested by the Naval Sea Systems Command. All goods or services attempted to be delivered on a Saturday, Sunday or Holiday without specific instructions from the Contracting Officer or his duly appointed representative will be returned to the contractor at his expense with no cost or liability to the U.S. Government.

2. The scheduled holidays for Indian Head Division, Naval Sea Systems Command are:

| HOLIDAY | DATE OF OBSERVANCE |
|-------------------------------|---------------------------|
| New Year's Day | 01 January (Tuesday)* |
| Martin Luther King's Birthday | 21 January (Monday)* |
| President's Day | 18 February (Monday)* |
| Memorial Day | 28 May (Monday)* |
| Independence Day | 4 July (Wednesday)* |
| Labor Day | 3 September (Monday)* |
| Columbus Day | 15 October (Monday)* |
| Veteran's Day | 12 November (Monday)* |

| | |
|------------------|-------------------------|
| Thanksgiving Day | 22 November (Thursday)* |
| Christmas Day | 25 December (Tuesday)* |

* If the actual date falls on a Saturday, the holiday will be observed the preceding Friday. If the holiday falls on a Sunday, the observance shall be on the following Monday.

3. The hours of operation for the Contracts Division and Receiving Branch are as follows:

| <u>AREA</u> | <u>FROM</u> | <u>TO</u> |
|---------------------------------|-------------|------------|
| Contracts Division (BLDG. 1558) | 7:30 A.M. | 4:00 P.M. |
| | | |
| Receiving Branch (BLDG. 116) | 7:30 A.M. | 11:00 A.M. |
| | 12:30 P.M. | 2:00 P.M. |

If you intend to visit the Contracts Division, it is advised that you call for an appointment at least 24 hours in advance.

IHD 84 - ACCIDENT REPORTING (NAVSEA/IHD) FEB 2000

(a) In accordance with DFARS 252.223-7002 (d) the Contractor shall immediately notify the Contracting Officer, Indian Head Division, Naval Sea Systems Command, Indian Head, MD 20640-5035 following an accident or incident. Also, a written report shall be forwarded within 10 days of the accident or incident containing, at a minimum, the following:

- (1) Location, date and local time of the occurrence;
- (2) Category of accident (fire, explosion, natural disaster, etc.);
- (3) Identification of equipment, material and type of activity involved;
- (4) Contract number;
- (5) Procuring activity (name of PCO and ACO);
- (6) Narrative of occurrence, including cause(s), if known;
- (7) Personnel involved and degree of injury, if any. Specify whether Contractor and/or Government personnel;
- (8) Assessment of damage. Estimate in dollars for contractor and/or government owned material, property, equipment;
- (9) Was a news release made? If so, by whom? If not, will a news release be made?
- (10) Was a request made for any assistance?
- (11) Will there be any effect on production? If so, explain in detail.
- (12) Corrective action taken, if any.
- (13) Name and title of person submitting this report.

(b) The DCAS ACO shall immediately notify the Procurement Contracting Officer (PCO) following an accident or incident and then forward weekly written reports until the accident or incident no longer affects production and/or when contract deliveries are on schedule.

IHD 88 - CERTIFICATE OF ANALYSIS (NAVSEA/IHD) FEB 2000

(a) A certificate of analysis/test showing that the material has been sampled and/or tested and found to be within the minimum requirements of the specification/drawing/contract shall be prepared. The certificate shall be () maintained by the contractor for a minimum of one (1) year from the completion of the order/contract or (X) forwarded to this activity; one (1) copy to accompany the shipment (in the packing list envelope) and one (1) copy mailed to arrive at time of receipt of the shipment (mark the certificate to the attention of: Code 4220P).

(b) Each certificate must be traceable to the material covered by the certificate. The certificate shall state, above the signature of a legally authorized representative of the company the following:

This certification concerns a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

(c) Certificate for shipments of bulk chemicals shall state contract number, drawing or specification number, lot number, rail car number if shipped by rail or trailer number if by truck, and the date of shipment.

(d) Any demurrage accrued as a result of detaining commercial carriers because of nonreceipt of the certificate shall be the responsibility of the Contractor.

(e) Failure to provide certification at the time of shipment may result in material being rejected and returned at the contractor's expense.

NAPS 5252.232-9000 SUBMISSION OF INVOICES (FIXED PRICE) (JUL 1992)

(a) "Invoice" as used in this clause does not include contractor requests for progress payments.

(b) The contractor shall submit original invoices with copies to the address identified in the solicitation/contract award form (SF 26-Block 10; SF 33-Block 23; SF 1447-Block 14), unless delivery orders are applicable, in which case invoices will be segregated by individual order and submitted to the address specified in the order (DD 1155-Block 13 or SF 26-Block 10).

(c) The use of copies of the Material Inspection and Receiving Report (MIRR), DD Form 250, as an invoice is encouraged. DFARS Appendix F-306 provides instructions for such use. Copies of the MIRR used as an invoice are in addition to the standard distribution stated in DFARS F-401.

(d) In addition to the requirements of the Prompt Payment clause of this contract, the contractor shall cite on each invoice the contract line item number (CLIN); the contract subline item number (SLIN), if applicable; the accounting classification reference number (ACRN) as identified on the financial accounting data sheets, and the payment terms.

(e) The contractor shall prepare:

- ☐ a separate invoice for each activity designated to receive the supplies or services.
- ☒ a consolidated invoice covering all shipments delivered under an individual order.
- ☐ either of the above.

(f) If acceptance is at origin, the contractor shall submit the MIRR or other acceptance verification directly to the designated payment office. If acceptance is at destination, the consignee will forward acceptance verification to the designated payment office.

NOTE: A COPY OF EACH INVOICE SHALL BE FORWARDED TO:

**NAVSEA INDIAN HEAD
CODE 021J
INDIAN HEAD MD 20640-5035**

SEA G-1 - CONTRACT ADMINISTRATION DATA LANGUAGE (NAVSEA)

(a) Electronic Funds Transfer (EFT) Payment Requirements

FAR 52.232-33, MANDATORY INFORMATION FOR ELECTRONIC FUNDS TRANSFER PAYMENT, is included in this solicitation/contract. All Contractor payments will be made by EFT unless excepted or otherwise determined by the paying office designated in the contract.

The Contractor must initiate enrollment in EFT by contacting the paying office designated in the contract and requesting form SF 3881, Automated Clearing House (ACH) Vendor/Miscellaneous Payment Enrollment Plan. This form must be

completed by the Contractor and their financial institution and returned to the paying office. The paying office will complete the process and notify the Contractor that EFT enrollment is complete. All payments under this contract will be held until the Contractor provides the required EFT enrollment information.

(b) Enter below the address (street and number, city, county, state and zip code) of the Contractor's facility which will administer the contract if such address is different from the address shown on the SF 26 or SF 33, as applicable.

SECTION H Special Contract Requirements

CLAUSES INCORPORATED BY FULL TEXT

5252.202-9101 ADDITIONAL DEFINITIONS (MAY 1993)

As used throughout this contract, the following terms shall have the meanings set forth below:

- (a) DEPARTMENT - means the Department of the Navy.
- (b) REFERENCES TO THE FEDERAL ACQUISITION REGULATION (FAR) - All references to the FAR in this contract shall be deemed to also reference the appropriate sections of the Defense FAR Supplement (DFARS), unless clearly indicated otherwise.
- (c) REFERENCES TO ARMED SERVICES PROCUREMENT REGULATION OR DEFENSE ACQUISITION REGULATION - All references in this document to either the Armed Services Procurement Regulation (ASPR) or the Defense Acquisition Regulation (DAR) shall be deemed to be references to the appropriate sections of the FAR/DFARS.
- (d) NATIONAL STOCK NUMBERS - Whenever the term Federal Item Identification Number and its acronym FIIN or the term Federal Stock Number and its acronym FSN appear in the contract, order or their cited specifications and standards, the terms and acronyms shall be interpreted as National Item Identification Number (NIIN) and National Stock Number (NSN) respectively which shall be defined as follows:
 - (1) National Item Identification Number (NIIN). The number assigned to each approved Item Identification under the Federal Cataloging Program. It consists of nine numeric characters, the first two of which are the National Codification Bureau (NCB) Code. The remaining positions consist of a seven digit non-significant number.
 - (2) National Stock Number (NSN). The National Stock Number (NSN) for an item of supply consists of the applicable four position Federal Supply Class (FSC) plus the applicable nine position NIIN assigned to the item of supply.

5252.216-9110 ORDERS (FIXED-PRICE) (JUN 2000)

- (a) General. Orders for supplies or services specified in Section B of the Schedule may be issued by the Contracting Officer at any time during the effective period of this agreement. Except as otherwise provided in paragraph (e) below, the Contractor agrees to accept and perform orders issued by the Contracting Officer within the scope of this agreement. It is understood and agreed that the Government has no obligation under the terms of this agreement to issue any orders. Except as otherwise provided in any order, the Contractor shall furnish all materials and services necessary to accomplish the work specified in each order issued hereunder; provided, however, that this agreement shall not be used for the furnishing of supplies or services which are covered by any "guaranty" or "warranty" clause(s) of the contract(s) under which the supplies were manufactured. In the event of any inconsistency between any order and this agreement, this agreement shall control. All requirements of this agreement shall be applicable to all orders issued hereunder. Wherever the word "contract" appears in this agreement, it shall be deemed to include within its meaning the word "order", and each order shall be considered a separate binding contract as of its effective date. The Contractor shall segregate the costs incurred in the performance of any order issued hereunder from the costs of all other orders issued under this agreement.
- (b) Ordering. Orders and revisions thereto shall be made in writing and be signed by any authorized Contracting Officer cited in paragraph (i). Each order shall:

- (1) set forth detailed specifications or requirements for the supplies or services being ordered, (or reference applicable specifications or requirements in Section C of this agreement), and, shall refer to the appropriate item under Section B of this agreement;
- (2) set forth quantities being ordered;
- (3) set forth preservation, packaging and packing instructions, if any;
- (4) set forth delivery or performance dates;
- (5) designate the place(s) where inspection and acceptance will be made by the Government;
- (6) set forth either the firm contract price or, in the case of an undefinitized order, the definitization schedule and both the monetary limitation on Government liability for the undefinitized order and the maximum ceiling amount at which the order may be definitized;
- (7) set forth appropriation and accounting data for the work being ordered;
- (8) set forth any discount offered for prompt payment;
- (9) be dated;
- (10) be identified by number in accordance with DFARS 204.7004;
- (11) set forth the property, if any, to be furnished by the Government and the date(s) such property is to be delivered to the Contractor;
- (12) set forth the disbursing office where payment is to be made and other applicable contract administration data;
- (13) cite the applicable circumstance or exception and the justification control number. Orders for items not identified in the class justification, or an individual justification, and the basic ordering agreement are unauthorized;
- (14) be issued on an SF 26 or a DD Form 1155; and
- (15) set forth any other pertinent information.

(c) Firm Priced Orders. Except as otherwise provided in paragraph (d) below, the Contractor shall not begin any work on an order until a firm priced order is issued by the Contracting Officer. Upon receipt of a proposed order, the Contractor shall promptly submit to the Contracting Officer a price proposal for the work specified in the order. The Contractor agrees that it will submit such cost or pricing data as the Contracting Officer may require. Promptly after receipt of the Contractor's proposal and supporting cost or pricing data, the Contractor and the Contracting Officer shall negotiate and agree upon a price and delivery schedule for the work being ordered. The price and delivery schedule, as agreed upon, shall be set forth in the priced order and the order shall be signed by both the Contracting Officer and the Contractor. Upon receipt of the priced order, the Contractor shall promptly commence work and shall diligently complete it.

(d) Un definitized Orders. Whenever the Contracting Officer determines that urgent demands or requirements prevent the issuance of a firm priced order, the Contracting Officer may issue an unpriced order. Such order may be unilateral or bilateral and shall establish a limitation on Government liability, a maximum ceiling amount and a schedule for definitization, as described in subparagraph (f)(2) below. Upon request, the Contractor shall submit a maximum ceiling amount proposal before the undefinitized order is issued. The maximum ceiling amount is the maximum price at which the order may be definitized. Except as provided in paragraph (e) below, the Contractor shall commence performance of the order upon receipt. The clause entitled "CONTRACT DEFINITIZATION" (DFARS 252.217-7027) shall be included in any undefinitized order.

(e) Rejection of Unilateral Orders. The Contractor may reject any unilateral order if the Contractor determines it cannot feasibly perform the order, or if it does not concur with the maximum ceiling amount. However, each unilateral order shall be deemed to have been accepted by the Contractor unless within fifteen (15) days of issuance of the order the Contractor notifies the Contracting Officer in writing of its rejection of the order.

(f) Definitization of Un definitized Orders. (1) The Contractor agrees that following the issuance of an undefinitized order, it will promptly begin negotiating with the Contracting Officer the price and terms of a definitive order that will include: (A) all clauses required by regulation on the date of the order; (B) all clauses required by law on the date of execution of the definitive order; and, (C) other mutually agreeable clauses, terms and/or conditions. No later than sixty (60) days after the undefinitized order is issued, the Contractor shall submit a cost proposal with sufficient data to support the accuracy and derivation of its price; and, when required by FAR or the Contracting Officer, cost or pricing data. If additional cost information is available prior to the conclusion of negotiations, the Contractor shall provide that information to the Contracting Officer. The price agreed upon shall be set forth in a bilateral modification to the order. In no event shall the price exceed the maximum ceiling amount specified in the undefinitized order.

(2) Each undefinitized order shall contain a schedule for definitization which shall include a target date for definitization and dates for submission of a qualifying proposal, beginning of negotiations and, if appropriate, submission of make-or-buy and subcontracting plans and cost or pricing data. Submission of a qualifying proposal in accordance with the definitization schedule is a material element of the order. The schedule shall provide for definitization of the order by the earlier of:

- (i) specified target date which is not more than 180 days after the issuance of the undefinitized order. However, that target date may be extended by the Contracting Officer for up to 180 days after the Contractor submits a qualifying proposal as defined in DFARS 217.7401; or
- (ii) the date on which the amount of funds obligated by the Government under the undefinitized order exceeds fifty percent (50%) of the order's maximum ceiling amount, except as provided in subparagraph (f)(3) below.

(3) If agreement on a definitive order is not reached within the time provided pursuant to subparagraph (f)(2) above, the Contracting Officer may, with the approval of the Head of the Contracting Activity, determine a reasonable price in accordance with Subpart 15.4 and Part 31 of the FAR, and issue a unilateral order subject to Contractor appeal as provided in the "DISPUTES" clause (FAR 52.233-1). In any event, the Contractor shall proceed with completion of the order, subject to the "LIMITATION OF GOVERNMENT LIABILITY" clause (FAR 52.216-24).

(g) Limitation of Government Liability. (1) Each undefinitized order shall set forth the limitation of Government liability, which shall be the maximum amount that the Government will be obligated to pay the Contractor for performance of the order until the order is definitized. The Contractor is not authorized to make expenditures or incur obligations exceeding the limitation of Government liability set forth in the order. If such expenditures are made, or if such obligations are incurred, those expenditures and obligations will be at the Contractor's sole risk and expense. Further, the limitation of liability shall be the maximum Government liability if the order is terminated. The clause at FAR 52.216-24 shall be included in any undefinitized order.

(2) Except for undefinitized orders for Foreign Military Sales; purchases of less than \$25,000; special access programs; and Congressionally-mandated long lead procurements; and except as otherwise provided in subparagraph (g)(3) below, the limitation of Government liability shall not exceed fifty percent (50%) of the maximum ceiling amount of an undefinitized order. In the case of orders within these excepted categories, however, the procedures set forth herein shall be followed to the maximum extent practical.

(3) If the Contractor submits a qualifying proposal, as defined in DFARS 217.7401, to definitize an order before the Government obligated fifty percent (50%) of the maximum ceiling amount, the Contracting Officer may increase the limitation of Government liability up to no more than seventy-five percent (75%) of the maximum ceiling amount or up to seventy-five percent (75%) of the price proposed by the Contractor, whichever is less.

(4) If at any time the Contractor believes that its expenditures under an order will exceed the limitation of Government liability, the Contractor shall so notify the Contracting Officer, in writing, and propose an appropriate increase in the limitation of Government liability of such order. Within thirty (30) days of such notice, the Contracting Officer will either (i) notify the Contractor in writing of such appropriate increase, or (ii) instruct the Contractor how and to what extent the work shall be continued; provided, however, that in no event shall the Contractor be obligated to proceed with work on an undefinitized order beyond the point where its costs incurred plus a reasonable profit exceed the limitation of Government liability, and provided also that in no event shall the Government be obligated to pay the Contractor any amount in excess of the limitation of Government liability specified in any such order prior to definitization.

(h) Initial Spares. The limitations set forth in paragraph (d) and subparagraphs (f)(2), (g)(2) and (g)(3), do not apply to undefinitized orders for the purchase of initial spares.

(i) Ordering Activities. The following activities are authorized to issue orders hereunder:

The Contracting Officer of the Ordering Activity shall forward a copy of each executed order marked "DD-350", to the Commander, Naval Sea Systems Command, ATTN: SEA 0293.

(j) Funds in the following amount are committed under this Basic Ordering Agreement for use by the Ordering Activity in obligating funds to pay for orders placed hereunder:

| <u>Item</u> | <u>Funds</u> |
|-------------|--------------|
|-------------|--------------|

IHD 113 - NOTICE OF INCORPORATION OF SECTIONS K, L, AND M (NAVSEA/IHD) FEB 2000

The following sections of the solicitation will not be distributed with the contract; however, they are incorporated in and form a part of the resultant contract as though furnished in full text therewith:

| SECTION | TITLE |
|---------|--|
| K | Representations, Certifications and Other Statements of Offerors (Bidders) |
| L | Instructions, Conditions, and Notices to Offerors (Bidders) |
| M | Evaluation Factors for Award |

IHD 114 - CONTRACTING OFFICER'S REPRESENTATIVE (COR) (NAVSEA/IHD) FEB 2000

(a) The COR for this contract is:

Name: Ed O'Connor
Mailing Address: NAVSEA Indian Head Division
Code 4220P

Indian Head MD 20640-5035
 Telephone No.: 301-744-1444

(b) The Alternate COR for this contract is:

Name: _____ Mailing Address: _____
 Code: _____ Telephone No.: _____

(c) The COR will act as the Contracting Officer's representative for technical matters, providing technical direction and discussion, as necessary, with respect to the specification or statement of work, and monitoring the progress and quality of contractor performance. The COR is not an Administrative Contracting Officer and does not have authority to direct the accomplishment of effort which is beyond the scope of the statement of work in the contract (or delivery order).

(d) When, in the opinion of the contractor, the COR requests effort outside the existing scope of the contract (or delivery order), the contractor shall promptly notify the contracting officer (or ordering officer) in writing. No action shall be taken by the contractor under such direction until the contracting officer has issued a modification to the contract (or in the case of a delivery order, until the ordering officer has issued a modification to the delivery order); or until the issue has been otherwise resolved.

(e) In the event that the COR named above is absent due to leave, illness or official business, all responsibility and functions assigned to the COR will be the responsibility of the alternate COR.

IHD 125 - TYPES OF DELIVERY ORDERS UNDER INDEFINITE DELIVERY TYPE CONTRACTS (FEB 2000) (NAVSEA/IHD)

(a) The following types of delivery orders will be issued under this contract:

FIRM FIXED PRICE

IHD 126 - GOVERNMENT-FURNISHED PROPERTY (FEB 2000) (NAVSEA/IHD)

(a) The Government will furnish the following property to the Contractor for use in performance of this contract in accordance with the following schedule:

| | |
|-----------------------|----------------------------------|
| 12 Meter Drop Fixture | 30 days after placement of order |
| RDX Comp CH-6 | 30 days after placement of order |
| MK 3 MOD 0 Containers | 30 days after placement of order |

(b) The property will be delivered at the Governments expense at or near **(The contractor is to insert the address, city or town and state in which the plant is located; and if rail transportation is specified in paragraph (a) above, the exact location of private siding or public team tract at which rail shipments will be received, as well as the name of the railroad(s))**:

(c) Only the property listed above in the quantity shown will be furnished by the Government. All other property required for performance of this contract shall be furnished by the contractor.

(d) Within 30 days after Government furnished property is determined by the contractor to be lost, damaged, destroyed, no longer usable, or no longer needed for the performance of the contract, the Contractor shall notify the Contracting Officer, in writing, thereof.

SEA H-8 - NAVSEA 5252.245-9108 GOVERNMENT-FURNISHED PROPERTY (PERFORMANCE) (SEP 1990)

The Government will provide only that property set forth below, notwithstanding any term or condition of this contract to the contrary. Upon Contractor's written request to the cognizant Technical Program Manager, via the cognizant Contract Administration Office, the Government will furnish the following for use in the performance of this contract:

12 Meter Drop Fixture
RDX Comp CH-6 MIL-C-21723 120% of Production Req, Explosive
MK 2 MOD 0 Containers* 120% of Production Req, Transporting

*Dunnage to pack fuze boosters in the containers will be provided by the contractor.

SECTION I Contract Clauses

CLAUSES INCORPORATED BY REFERENCE:

| | | |
|-----------|--|----------|
| 52.202-1 | Definitions | DEC 2001 |
| 52.203-3 | Gratuities | APR 1984 |
| 52.203-5 | Covenant Against Contingent Fees | APR 1984 |
| 52.203-6 | Restrictions On Subcontractor Sales To The Government | JUL 1995 |
| 52.203-7 | Anti-Kickback Procedures | JUL 1995 |
| 52.203-8 | Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity | JAN 1997 |
| 52.203-10 | Price Or Fee Adjustment For Illegal Or Improper Activity | JAN 1997 |
| 52.203-12 | Limitation On Payments To Influence Certain Federal Transactions | JUN 1997 |
| 52.204-4 | Printed or Copied Double-Sided on Recycled Paper | AUG 2000 |
| 52.208-9 | Contractor Use of Mandatory Sources of Supply or Services | FEB 2002 |
| 52.209-6 | Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment | JUL 1995 |
| 52.211-5 | Material Requirements | AUG 2000 |
| 52.211-15 | Defense Priority And Allocation Requirements | SEP 1990 |
| 52.215-2 | Audit and Records--Negotiation | JUN 1999 |
| 52.215-8 | Order of Precedence--Uniform Contract Format | OCT 1997 |
| 52.215-14 | Integrity of Unit Prices | OCT 1997 |
| 52.215-21 | Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data--Modifications | OCT 1997 |
| 52.219-6 | Notice Of Total Small Business Set-Aside | JUL 1996 |
| 52.219-8 | Utilization of Small Business Concerns | OCT 2000 |
| 52.219-14 | Limitations On Subcontracting | DEC 1996 |
| 52.222-3 | Convict Labor | AUG 1996 |
| 52.222-19 | Child Labor--Cooperation with Authorities and Remedies | DEC 2001 |
| 52.222-20 | Walsh-Healy Public Contracts Act | DEC 1996 |
| 52.222-21 | Prohibition Of Segregated Facilities | FEB 1999 |
| 52.222-26 | Equal Opportunity | APR 2002 |
| 52.222-35 | Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans | DEC 2001 |
| 52.222-36 | Affirmative Action For Workers With Disabilities | JUN 1998 |
| 52.222-37 | Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era and Other Eligible Veterans | DEC 2001 |
| 52.223-3 | Hazardous Material Identification And Material Safety Data | JAN 1997 |
| 52.223-6 | Drug Free Workplace | MAY 2001 |
| 52.223-14 | Toxic Chemical Release Reporting | OCT 2000 |
| 52.225-8 | Duty-Free Entry | FEB 2000 |
| 52.225-13 | Restrictions on Certain Foreign Purchases | JUL 2000 |
| 52.227-1 | Authorization and Consent | JUL 1995 |
| 52.227-2 | Notice And Assistance Regarding Patent And Copyright Infringement | AUG 1996 |
| 52.229-3 | Federal, State And Local Taxes | JAN 1991 |
| 52.229-5 | Taxes--Contracts Performed In U S Possessions Or Puerto Rico | APR 1984 |
| 52.232-1 | Payments | APR 1984 |
| 52.232-8 | Discounts For Prompt Payment | FEB 2002 |
| 52.232-9 | Limitation On Withholding Of Payments | APR 1984 |
| 52.232-11 | Extras | APR 1984 |
| 52.232-17 | Interest | JUN 1996 |

| | | |
|-----------------|--|----------|
| 52.232-23 | Assignment Of Claims | JAN 1986 |
| 52.232-25 | Prompt Payment | FEB 2002 |
| 52.232-33 | Payment by Electronic Funds Transfer--Central Contractor Registration | MAY 1999 |
| 52.233-1 | Disputes | DEC 1998 |
| 52.233-1 Alt I | Disputes (Dec 1998) - Alternate I | DEC 1991 |
| 52.233-3 | Protest After Award | AUG 1996 |
| 52.242-10 | F.O.B. Origin--Government Bills Of Lading Or Prepaid Postage | APR 1984 |
| 52.242-13 | Bankruptcy | JUL 1995 |
| 52.243-1 | Changes--Fixed Price | AUG 1987 |
| 52.245-1 | Property Records | APR 1984 |
| 52.245-2 | Government Property (Fixed Price Contracts) | DEC 1989 |
| 52.246-24 Alt I | Limitation Of Liability--High Value Items (Feb 1997) - Alternate I | APR 1984 |
| 52.247-63 | Preference For U.S. Flag Air Carriers | JAN 1997 |
| 52.248-1 | Value Engineering | FEB 2000 |
| 52.249-2 | Termination For Convenience Of The Government (Fixed-Price) | SEP 1996 |
| 52.249-8 | Default (Fixed-Price Supply & Service) | APR 1984 |
| 52.251-1 | Government Supply Sources | APR 1984 |
| 52.253-1 | Computer Generated Forms | JAN 1991 |
| 252.203-7001 | Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies | MAR 1999 |
| 252.204-7000 | Disclosure Of Information | DEC 1991 |
| 252.204-7003 | Control Of Government Personnel Work Product | APR 1992 |
| 252.204-7004 | Required Central Contractor Registration | NOV 2001 |
| 252.209-7000 | Acquisition From Subcontractors Subject To On-Site Inspection Under The Intermediate Range Nuclear Forces (INF) Treaty | NOV 1995 |
| 252.209-7001 | Disclosure of Ownership or Control by the Government of a Terrorist Country | MAR 1998 |
| 252.209-7004 | Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country | MAR 1998 |
| 252.223-7001 | Hazard Warning Labels | DEC 1991 |
| 252.223-7002 | Safety Precautions For Ammunition And Explosives | MAY 1994 |
| 252.223-7004 | Drug Free Work Force | SEP 1988 |
| 252.225-7001 | Buy American Act And Balance Of Payments Program | MAR 1998 |
| 252.225-7002 | Qualifying Country Sources As Subcontractors | DEC 1991 |
| 252.225-7005 | Identification Of Expenditures In The United States | APR 2002 |
| 252.225-7009 | Duty-Free Entry--Qualifying Country Supplies (End Products and Components) | AUG 2000 |
| 252.225-7010 | Duty-Free Entry--Additional Provisions | AUG 2000 |
| 252.225-7012 | Preference For Certain Domestic Commodities | APR 2002 |
| 252.225-7014 | Preference For Domestic Specialty Metals | MAR 1998 |
| 252.225-7031 | Secondary Arab Boycott Of Israel | JUN 1992 |
| 252.225-7037 | Duty Free Entry--Eligible End Products | AUG 2000 |
| 252.226-7001 | Utilization of Indian Organizations and Indian-Owned Economic Enterprises-DoD Contracts | SEP 2001 |
| 252.227-7013 | Rights in Technical Data--Noncommercial Items | NOV 1995 |
| 252.227-7016 | Rights in Bid or Proposal Information | JUN 1995 |
| 252.227-7030 | Technical Data--Withholding Of Payment | MAR 2000 |
| 252.227-7036 | Declaration of Technical Data Conformity | JAN 1997 |
| 252.227-7037 | Validation of Restrictive Markings on Technical Data | SEP 1999 |
| 252.243-7001 | Pricing Of Contract Modifications | DEC 1991 |
| 252.243-7002 | Requests for Equitable Adjustment | MAR 1998 |
| 252.244-7000 | Subcontracts for Commercial Items and Commercial Components (DoD Contracts) | MAR 2000 |
| 252.245-7001 | Reports Of Government Property | MAY 1994 |

| | | |
|--------------|---|----------|
| 252.246-7000 | Material Inspection And Receiving Report | DEC 1991 |
| 252.246-7001 | Warranty Of Data | DEC 1991 |
| 252.247-7023 | Transportation of Supplies by Sea | MAY 2002 |
| 252.247-7024 | Notification Of Transportation Of Supplies By Sea | MAR 2000 |

CLAUSES INCORPORATED BY FULL TEXT

52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (MAY 2002)

(a) Definitions. As used this clause--

"Commercial item", has the meaning contained in the clause at 52.202-1, Definitions.

"Subcontract", includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c)(1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (OCT 2000) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$500,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (APR 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212(a)).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

(v) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (JUN 2000) (46 U.S.C. Appx 1241) (flowdown not required for subcontracts awarded beginning May 1, 1996).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of clause)

52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(c) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

52.209-3 FIRST ARTICLE APPROVAL--CONTRACTOR TESTING (SEP 1989)

(Contracting Officer shall insert details)

(a) The Contractor shall test 30 unit(s) of Lot/Item 0001AA as specified in this contract. At least 14 calendar days before the beginning of first article tests, the Contractor shall notify the Contracting Officer, in writing, of the time and location of the testing so that the Government may witness the tests.

(b) The Contractor shall submit the first article test report within 30 calendar days from the date of this contract in accordance with Section J, DD Form 1423 marked "FIRST ARTICLE TEST REPORT: Contract No. , Lot/Item No. " Within 10 calendar days after the Government receives the test report, the Contracting Officer shall notify the Contractor, in writing, of the conditional approval, approval, or disapproval of the first article. The notice of conditional approval or approval shall not relieve the Contractor from complying with all requirements of the specifications and all other terms and conditions of this contract. A notice of conditional approval shall state any further action required of the Contractor. A notice of disapproval shall cite reasons for the disapproval.

(c) If the first article is disapproved, the Contractor, upon Government request, shall repeat any or all first article tests. After each request for additional tests, the Contractor shall make any necessary changes, modifications, or repairs to the first article or select another first article for testing. All costs related to these tests are to be borne by the Contractor, including any and all costs for additional tests following a disapproval. The Contractor shall then conduct the tests and deliver another report to the Government under the terms and conditions and within the time specified by the Government. The Government shall take action on this report within the time specified in paragraph (b) above. The Government reserves the right to require an equitable adjustment of the contract price for any extension of the delivery schedule, or for any additional costs to the Government related to these tests.

(d) If the Contractor fails to deliver any first article report on time, or the Contracting Officer disapproves any first article, the Contractor shall be deemed to have failed to make delivery within the meaning of the Default clause of this contract.

(e) Unless otherwise provided in the contract, and if the approved first article is not consumed or destroyed in testing, the Contractor may deliver the approved first article as part of the contract quantity if it meets all contract requirements for acceptance.

(f) If the Government does not act within the time specified in paragraph (b) or (c) above, the Contracting Officer shall, upon timely written request from the Contractor, equitably adjust under the changes clause of this contract the delivery or performance dates and/or the contract price, and any other contractual term affected by the delay.

(g) Before first article approval, the acquisition of materials or components for, or the commencement of production of, the balance of the contract quantity is at the sole risk of the Contractor. Before first article approval, the costs thereof shall not be allocable to this contract for (1) progress payments, or (2) termination settlements if the contract is terminated for the convenience of the Government.

(h) The Government may waive the requirement for first article approval test where supplies identical or similar to those called for in the schedule have been previously furnished by the offeror/contractor and have been accepted by

the Government. The offeror/contractor may request a waiver.

(End of clause)

52.216-18 ORDERING. (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from date of award through expiration of contract.

(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.

(c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

52.216-19 ORDER LIMITATIONS. (OCT 1995)

(a) Minimum order. When the Government requires supplies or services covered by this contract in an amount of less than **30 units** (insert dollar figure or quantity), the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) Maximum order. The Contractor is not obligated to honor:

(1) Any order for a single item in excess of **383 units** (insert dollar figure or quantity);

(2) Any order for a combination of items in excess of **383 units** (insert dollar figure or quantity); or

(3) A series of orders from the same ordering office within **30** days that together call for quantities exceeding the limitation in subparagraph (1) or (2) above.

(c) If this is a requirements contract (i.e., includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) above.

(d) Notwithstanding paragraphs (b) and (c) above, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within **15** days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

52.216-22 INDEFINITE QUANTITY. (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum". The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum".

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after **120 days after the end of the contract**.

(End of clause)

52.217-7 OPTION FOR INCREASED QUANTITY--SEPARATELY PRICED LINE ITEM (MAR 1989)

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within **30 days of contract award or within 30 days of previous option**. Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

(End of clause)

52.223-11 OZONE-DEPLETING SUBSTANCES (MAY 2001)

(a) Definition. Ozone-depleting substance, as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR part 82 as--

(1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or

(2) Class II, including, but not limited to, hydrochlorofluorocarbons.

(b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:

"WARNING: Contains (or manufactured with, if applicable), a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere."-----

The Contractor shall insert the name of the substance(s).

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far/>

<http://www.acq.osd.mil/dp/dars/dfars/dfars.html>

252.225-7008 SUPPLIES TO BE ACCORDED DUTY-FREE ENTRY (MAR 1998)

In accordance with paragraph (b) of the Duty-Free Entry clause of this contract, in addition to duty-free entry for all qualifying country supplies (end products and components) and all eligible end products subject to applicable trade agreements (if this contract contains the Buy American Act--Trade Agreements--Balance of Payments Program clause or the Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program clause), the following foreign end products that are neither qualifying country end products nor eligible end products under a trade agreement, and the following nonqualifying country components, are accorded duty-free entry.

(End of Clause)

252.251-7000 ORDERING FROM GOVERNMENT SUPPLY SOURCES (MAY 1995)

(a) When placing orders under Federal Supply Schedules or Personal Property Rehabilitation Price Schedules, the Contractor shall follow the terms of the applicable schedule and authorization. Include in each order:

(1) A copy of the authorization (unless a copy was previously furnished to the Federal Supply Schedule or Personal Property Rehabilitation Price Schedule contractor).

(2) The following statement:

This order is placed under written authorization from _____ dated _____. In the event of any inconsistency between the terms and conditions of this order and those of your Federal Supply Schedule contract or Personal Property Rehabilitation Price Schedule contract, the latter will govern.

(3) The completed address(es) to which the Contractor's mail, freight, and billing documents are to be directed.

(b) If a Federal Supply Schedule contractor refuses to honor an order placed by a Government contractor under an agency authorization, the Contractor shall report the circumstances to the General Services Administration, FFN, Washington, DC 20406, with a copy to the authorizing office.

(c) When placing orders under nonmandatory schedule contracts and requirements contracts, issued by the General Services Administration (GSA) Office of Information Resources Management, for automated data processing equipment, software and maintenance, communications equipment and supplies, and teleprocessing services, the Contractor shall follow the terms of the applicable contract and the procedures in paragraph (a) of this clause.

(d) When placing orders for Government stock, the Contractor shall --

(1) Comply with the requirements of the Contracting Officer's authorization, using FEDSTRIP or MILSTRIP procedures, as appropriate;

(2) Use only the GSA Form 1948-A, Retail Services Shopping Plate, when ordering from GSA Self-Service Stores;

(3) Order only those items required in the performance of Government contracts; and

(4) Pay invoices from Government supply sources promptly. For purchases made from DoD supply sources, this means within 30 days of the date of a proper invoice (see also Defense Federal Acquisition Regulation Supplement (DFARS) 251.105). For purposes of computing interest for late Contractor payments, the Government's invoice is deemed to be a demand for payment in accordance with the Interest clause of this contract. The Contractor's failure to pay may also result in the DoD supply source refusing to honor the requisition (see DFARS 251.102(f)) or in the Contracting Officer terminating the Contractor's authorization to use DoD supply sources. In the event the Contracting Officer decides to terminate the authorization due to the Contractor's failure to pay in a timely manner, the Contracting Officer shall provide the Contractor with prompt written notice of the intent to terminate the

authorization and the basis for such action. The Contractor shall have 10 days after receipt of the Government's notice in which to provide additional information as to why the authorization should not be terminated. Such termination shall not provide the Contractor with an excusable delay for failure to perform or complete the contract in accordance with the terms of the contract, and the Contractor shall be solely responsible for any increased costs.

(e) Only the Contractor may request authorization for subcontractor use of Government supply sources. The Contracting Officer will not grant authorizations for subcontractor use without approval of the Contractor.

(f) Government invoices shall be submitted to the Contractor's billing address, and Contractor payments shall be sent to the Government remittance address specified below:

Contractor's Billing Address [include point of contact and telephone number]:

Government Remittance Address [include point of contact and telephone number] :

(End of clause)

SECTION J List of Documents, Exhibits and Other Attachments

Attachment F

INDEFINITE QUANTITY SUPPLY CONTRACT WITH ORDERS PLACED BY PCO
(for IDIQ contracts that contain additional provisions for maintenance or performance acceptance criteria)

CONTRACT ADMINISTRATION PLAN
CONTRACT NO. N00174

In order to expedite administration of this contract, the following delineation of duties is provided. The individual/position designated as having responsibility should be contacted for any questions, clarifications, or information regarding the functions assigned.

1. PROCURING CONTRACTING OFFICER (CO) is responsible for:
 - a. All pre-award information, questions, data, or Freedom of Information inquiries.
 - b. Post-award conference
 - c. All post-award changes or interpretations regarding the scope, terms, or conditions of the basic contract and delivery orders against the contract.
 - d. Placing of delivery orders against the contract.
 - e. Maintaining a log of delivery orders placed, assuring that any stated "minimum" is ordered and that the "maximum" is not exceeded.
 - f. Monitoring of the COR.
 - g. Meeting annually with COR to review contract performance (joint responsibility of the COR). This may be satisfied telephonically, depending on the circumstances.

Other _____

2. CONTRACT ADMINISTRATION OFFICE (CAO) is responsible for matters specified in FAR 42.302 and DFARS 242.302 except in those areas otherwise designated herein.
3. DEFENSE CONTRACT AUDIT AGENCY (DCAA). If the contract contains any contract line items (CLINS) which are invoiced on a cost reimbursable basis, DCAA is responsible for audit verification/provisional approval of invoices and final audit of the costs before final payment of such costs to the contractor.
4. PAYING OFFICE is responsible for payment of approved proper invoices after acceptance is documented.
5. CONTRACTING OFFICER'S REPRESENTATIVE (COR) is responsible for:
 - a. Controlling all Government technical interface with the contractor and providing technical advice and clarifications of the specifications/Statement of Work.
 - b. Providing copies of all Government/contractor technical correspondence to the PCO.
 - c. Promptly furnishing the PCO with documentation/comment on any request for change, deviation or waiver (whether generated by the Government or the contractor).
 - d. Assuring that items ordered are delivered on time, and promptly notifying the PCO if any contractor delay in delivery is experienced.
 - e. If applicable, coordination of site preparation and installation to the extent specified in the contract as the Government's responsibility.
 - f. Quality assurance, inspection and acceptances of supplies, or services (if applicable).
 - g. If applicable, monitoring standard of performance testing or effectiveness level acceptance criteria.

- h. If applicable, monitoring of credits, such as downtime credits for maintenance if provided for in the contract, and making appropriate adjustments on contractor reimbursement.
- i. Promptly reviewing the contractor's invoices for goods/services received and accepted, to assure that they conform to the contract pricing and the delivery order. Improper invoices shall be returned immediately to the contractor. Proper correct invoices and/or DD250's, as applicable, shall be approved and forwarded to the paying office.
- j. If multiple activities will be ordering under the contract, the COR shall be the central point through which all requests for delivery orders must be submitted.
- k. Monitoring of the quantity of items ordered to assure that no requests are submitted to the PCO to order items in excess of that authorized by the contract (by contract line item).
- l. Maintain a COR file of all correspondence with the PCO and contractor and copies of all invoices.
- m. Meeting annually with the PCO to review contract performance. This may be satisfied telephonically, depending upon the circumstances.
- n. Complying with SECNAVINST 4200.27A "Proper Use of Contractor Personnel", NAVSEAINST 4200.19 "Service Contract Restriction and Safeguards", NAVSEAINST 4200.17B and SECNAVINST 4205.5 "Contracting Officer's Technical Representative" and the COR Appointment Letter.
- o. Submission of written report on contractor performance within 60 days of contract completion, but not less often than annually.
- p. Anticipating and submitting requests for follow-on contract requirements in sufficient time to allow for award prior to the expiration of this contract.
- q. Contract Performance Assessment System (CPARS).

() This contract WILL be registered in the CPARS database by the Contracts Division with the assistance of the COR. As stated in the COR appointment letter the COR is responsible for updating the CPARS database.

(X) CPARS does NOT apply to this contract.

Other: _____

NAMES/ADDRESS/TELEPHONE NUMBERS OF COGNIZANT INDIVIDUAL/OFFICE

COR: _____
 NAME CODE TELEPHONE

PCO (refer to Contracting Officer who Signed contract documents)

NAME CODE TELEPHONE

PAYING OFFICE (refer to page one of the contract document)

CAO (refer to page one of the contract document)

DCAA (if applicable) _____
 Office/Branch Address

Attachment A – Contract Data Requirements List (CDRL, DD Form 1423)

Attachment B – Data Item Descriptions (DID, DD Form 1664)

Attachment C – WS – 32616, Critical Item Product Fabrication Specification

Attachment D – Plan for Certification of Standard Missile Test Systems

Attachment E – Drawing 1635922, 3300320, 6503332, 6503333, 6503334, 6503335, 6503336, 6503337, 6503338, 6503339, 6503340, 6503341, 6503342, 6503343, 6503344, 6503345, 6503346, 6503347, 6503348, 6503349, 6503351, SA2875551, SA6503340 (**NOTE: Drawings will be sent only upon request**)

Attachment F – Contract Administration Plan

SECTION K Representations, Certifications and Other Statements of Offerors

CLAUSES INCORPORATED BY FULL TEXT

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to --

(i) Those prices,

(ii) The intention to submit an offer, or

(iii) The methods of factors used to calculate the prices offered;

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision _____ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of provision)

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of

this Certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989,--

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, Title 31, United States Code. Any person who makes an expenditure prohibited under this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

(End of provision)

52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)

(a) Definitions.

Common parent, as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

Taxpayer Identification Number (TIN), as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN).

___ TIN:-----

___ TIN has been applied for.

___ TIN is not required because:

___ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

___ Offeror is an agency or instrumentality of a foreign government;

___ Offeror is an agency or instrumentality of the Federal Government.

(e) Type of organization.

___ Sole proprietorship;

___ Partnership;

___ Corporate entity (not tax-exempt);

___ Corporate entity (tax-exempt);

___ Government entity (Federal, State, or local);

___ Foreign government;

___ International organization per 26 CFR 1.6049-4;

___ Other-----

(f) Common parent.

___ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

___ Name and TIN of common parent:

Name-----

TIN-----

(End of provision)

52.207-4 ECONOMIC PURCHASE QUANTITY--SUPPLIES (AUG 1987)

(a) Offerors are invited to state an opinion on whether the quantity(ies) of supplies on which bids, proposals or quotes are requested in this solicitation is (are) economically advantageous to the Government.

Each offeror who believes that acquisitions in different quantities would be more advantageous is invited to recommend an economic purchase quantity. If different quantities are recommended, a total and a unit price must be quoted for applicable items. An economic purchase quantity is that quantity at which a significant price break occurs. If there are significant price breaks at different quantity points, this information is desired as well.

OFFEROR RECOMMENDATIONS

| ITEM | QUANTITY | PRICE | QUOTATION | TOTAL |
|------|----------|-------|-----------|-------|
|------|----------|-------|-----------|-------|

(c) The information requested in this provision is being solicited to avoid acquisitions in disadvantageous quantities and to assist the Government in developing a data base for future acquisitions of these items. However, the Government reserves the right to amend or cancel the solicitation and resolicit with respect to any individual item in the event quotations received and the Government's requirements indicate that different quantities should be acquired.

(End of provision)

52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (DEC 2001)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that--

(i) The Offeror and/or any of its Principals--

(A) Are () are not () presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have () have not (), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are () are not () presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(ii) The Offeror has () has not (), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

52.215-6 PLACE OF PERFORMANCE (OCT 1997)

(a) The offeror or respondent, in the performance of any contract resulting from this solicitation, () intends, () does not intend [check applicable block] to use one or more plants or facilities located at a different address from the address of the offeror or respondent as indicated in this proposal or response to request for information.

(b) If the offeror or respondent checks "intends" in paragraph (a) of this provision, it shall insert in the following spaces the required information:

| | |
|-----------------------------------|-------------------------------------|
| ----- | ----- |
| Place of performance (street | Name and address of owner and |
| address, city, state, county, zip | operator of the plant or facility |
| code) | if other than offeror or respondent |
| ----- | ----- |

| | |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| ----- | ----- |

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) ALTERNATE I (APR 2002)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 332993.

(2) The small business size standard is 1500 employees.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations. (1) The offeror represents as part of its offer that it () is, () is not a small business concern.

(2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, that it () is, () is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a women-owned small business concern.

(4) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a veteran-owned small business concern.

(5) (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.) The offeror represents as part of its offer that it () is, () is not a service-disabled veteran-owned small business concern.

(6) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, as part of its offer, that--

(i) It () is, () is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It () is, () is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: _____.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(7) (Complete if offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.) The offeror shall check the category in which its ownership falls:

() Black American.

() Hispanic American.

() Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

() Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

() Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

() Individual/concern, other than one of the preceding.

(c) Definitions. As used in this provision--

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Small business concern means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

Women-owned small business concern means a small business concern --

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that --

(a) ☐ It has, ☐ has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) ☐ It has, ☐ has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

52.222-25 AFFIRMATIVE ACTION COMPLIANCE (APR 1984)

The offeror represents that

(a) ☐ it has developed and has on file, ☐ has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or

(b) ☐ has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(End of provision)

52.222-38 COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS (DEC 2001)

By submission of its offer, the offeror represents that, if it is subject to the reporting requirements of 38 U.S.C. 4212(d) (i.e., if it has any contract containing Federal Acquisition Regulation clause 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans), it has submitted the most recent VETS-100 Report required by that clause.

(End of provision)

52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

(a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

(b) By signing this offer, the offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

☐ (i) The facility does not manufacture, process or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

☐ (ii) The facility does not have 10 or more full-time employees as specified in section 313.(b)(1)(A) of EPCRA 42 U.S.C. 11023(b)(1)(A);

☐ (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

☐ (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

☐ (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST

COUNTRY (MAR 1998)

(a) "Definitions."

As used in this provision --

(a) "Government of a terrorist country" includes the state and the government of a terrorist country, as well as any political subdivision, agency, or instrumentality thereof.

(2) "Terrorist country" means a country determined by the Secretary of State, under section 6(j)(1)(A) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(i)(A)), to be a country the government of which has repeatedly provided support for such acts of international terrorism. As of the date of this provision, terrorist countries include: Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria.

(3) "Significant interest" means --

(i) Ownership of or beneficial interest in 5 percent or more of the firm's or subsidiary's securities. Beneficial interest includes holding 5 percent or more of any class of the firm's securities in "nominee shares," "street names," or some other method of holding securities that does not disclose the beneficial owner;

(ii) Holding a management position in the firm, such as a director or officer;

(iii) Ability to control or influence the election, appointment, or tenure of directors or officers in the firm;

(iv) Ownership of 10 percent or more of the assets of a firm such as equipment, buildings, real estate, or other tangible assets of the firm; or

(v) Holding 50 percent or more of the indebtedness of a firm.

(b) "Prohibition on award."

In accordance with 10 U.S.C. 2327, no contract may be awarded to a firm or a subsidiary of a firm if the government of a terrorist country has a significant interest in the firm or subsidiary or, in the case of a subsidiary, the firm that owns the subsidiary, unless a waiver is granted by the Secretary of Defense.

(c) "Disclosure."

If the government of a terrorist country has a significant interest in the Offeror or a subsidiary of the Offeror, the Offeror shall disclose such interest in an attachment to its offer. If the Offeror is a subsidiary, it shall also disclose any significant interest the government of a terrorist country has in any firm that owns or controls the subsidiary. The disclosure shall include --

(1) Identification of each government holding a significant interest; and

(2) A description of the significant interest held by each government.

(End of provision)

252.225-7000 BUY AMERICAN ACT--BALANCE OF PAYMENTS PROGRAM CERTIFICATE
(SEP 1999)

(a) Definitions. Domestic end product, qualifying country, qualifying country end product, and qualifying country end product have the meanings given in the Buy American Act and Balance of Payments Program clause of this solicitation.

(b) Evaluation. Offers will be evaluated by giving preference to domestic end products and qualifying country end products over nonqualifying country end products.

(c) Certifications. (1) The Offeror certifies that--

(i) Each end product, except those listed in paragraphs (c) (2) or (3) of this provision, is a domestic end product; and

(ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The Offeror certifies that the following end products are qualifying country end products:

Qualifying Country End Products

Line Item Number

Country of Origin

(List only qualifying country end products.)

(3) The Offeror certifies that the following end products are nonqualifying country end products:

Nonqualifying Country End Products

Line Item Number

Country of Origin (If known)

(End of provision)

252.225-7003 INFORMATION FOR DUTY-FREE ENTRY EVALUATION (MAR 1998)

(a) Does the offeror propose to furnish—

(1) A domestic end product with nonqualifying country components for which the offeror requests duty-free entry; or

(2) A foreign end product consisting of end items, components, or material of foreign origin other than those for which duty-free entry is to be accorded pursuant to the Duty-Free Entry--Qualifying Country Supplies (End Products and Components) clause or, if applicable, the Duty-Free Entry--Eligible End Products clause of this solicitation?

Yes () No ()

(b) If the answer in paragraph (a) is yes, answer the following questions:

(1) Are such foreign supplies now in the United States?

Yes () No ()

(2) Has the duty on such foreign supplies been paid?

Yes () No ()

(3) If the answer to paragraph (b)(2) is no, what amount is included in the offer to cover such duty? \$ _____

(c) If the duty has not been paid, the Government may elect to make award on a duty-free basis. If so, the offered price will be reduced in the contract award by the amount specified in paragraph (b)(3). The Offeror agrees to identify, at the request of the Contracting Officer, the foreign supplies which are subject to duty-free entry.

(End of clause)

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

____ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

____ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

SECTION L Instructions, Conditions and Notices to Bidders

CLAUSES INCORPORATED BY REFERENCE:

| | | |
|--------------|---|----------|
| 52.204-6 | Data Universal Numbering System (DUNS) Number | JUN 1999 |
| 52.211-2 | Availability of Specifications Listed in the DOD Index of Specifications and Standards (DODISS) and Descriptions Listed in the Acquisition Management Systems and Data Requirements Control List, DoD 5010.12-L | DEC 1999 |
| 252.227-7017 | Identification and Assertion of Use, Release, or Disclosure Restrictions | JUN 1995 |

CLAUSES INCORPORATED BY FULL TEXT

SECTION L PROPOSAL REQUIREMENTS

Instructions to Offerors and Evaluation Factors for Award

THE OFFEROR SHALL PROVIDE THE FOLLOWING INFORMATION:

GENERAL INFORMATION: Each offeror must submit an offer/proposal and other written information in strict accordance with these instructions. When evaluating an offeror the Government will consider how well the offeror complied with both the letter and spirit of these instructions. The government will consider any failure on the part of the offeror to comply with both the letter and the spirit of these instructions to be an indication of the type of conduct it can expect during contract performance. Therefore, the Government encourages offerors to contact the contracting officer by telephone, facsimile transmission, e-mail, or mail in order to request an explanation of any aspect of these instructions.

Offerors are required to follow the specific instructions in submitting their information. Failure to do so may result in the offeror's submission determined unacceptable and ineligible for award. Each offeror's submission shall be screened by the Contracting Officer or a designee upon receipt to insure compliance with the instructions contained in the RFP. Elimination of an offeror for failure to follow the specific instructions in the RFP is at the sole discretion of the Contracting Officer.

Exceptions: Offerors are not encouraged to take exceptions to this solicitation however, any exceptions taken to the specification, terms and conditions, or the solicitation in general shall be explained in detail and set forth in a cover letter included in the cost/price volume. Offerors are to detail the particular section, clause, paragraph, and page to which they are taking exception.

OFFERORS SHALL ADDRESS THE FOLLOWING FACTORS: (Listed in order of importance)

Information shall be submitted in three separate volumes or folders as detailed below.

1. Technical Comprehension
2. Production Capability --| Note: Factors 2, 3 and 4 are
3. Management and Quality Assurance---| Equal in Value
4. Corporate Experience
5. Past Performance (Note: Past Performance is equal in value to 1,2, 3 &4 combined)
6. Cost/Price

VOLUME I - Shall address Factors 1,2, 3 and 4 as detailed below. Not to exceed 20 single sided pages, not less than 10 pitch (Times New Roman or similar). The copy of the offeror's Quality Control Manual as required by Factor 3 is excluded from the 20 page count.

1) TECHNICAL COMPREHENSION

- (a) The offeror shall show an understanding of the processes of components needed to be machined or otherwise fabricated and assembled relating to specific sizes, tolerance and type of materials.
- (b) The offeror shall describe their understanding of various metallic protective coatings.
- (c) The contractor shall show their familiarity with pressing explosive CH-6.
- (d) The contractor shall show how first article and lot acceptance testing will be accomplished and whom, themselves or through a subcontractor.

2. Production Capability

- (a) The offeror shall list equipment and facilities they will be using to perform all work described in this requirement.
- (b) The offeror shall identify the production rate and state how it will be maintained.
- (c) The offeror shall provide a milestone workload chart of all current contracts. This workload chart is to be annotated with the DX priority rating of each contract.

3. Management and Quality Assurance

- (a) The offeror shall provide a work plan and organizational structure to manage work to ensure a smooth operation.
- (b) The offeror shall provide a plan to track work in process to ensure contracted schedules, with enough flexibility to manage several ongoing efforts.
- (c) The offeror shall provide a staffing plan to reflect adequate levels to conduct the required work and a reasonable approach for hiring and training new hires in a timely manner.
- (d) The offeror shall identify subcontractors and show their percentage of participation and the work they will be performing.
- (e) The offeror shall provide a copy of their Quality Control Manual.
- (f) The offeror shall explain final acceptance procedures.
- (g) The offeror shall describe their approach to in-process quality control.
- (h) The offeror shall provide a detailed inspection plan for all components.

4. Corporate Experience (this area should focus on company experience, not individual experience)

- (a) The offeror shall describe the organization's corporate experience on related efforts and production experience with fuze booster type devices. Offeror shall include a list, including contract number, item, quantity and point of contact for the same or similar items.

VOLUME II - (Shall contain only the Past Performance Information)

5. Past Performance

Past performance is a measure of the degree to which an offeror, as an organization, has during the past three (3) years: (1) satisfied its customers, and (2) complies with federal, state, and local laws and regulations. The offeror shall provide a list of references using the Past Performance Matrix, (Enclosure 1), who will be able to provide information regarding the offerors past performance during the past three (3) years regarding: (1) the quality and timeliness of the offerors work; (2) the reasonableness of its prices, costs, and claims; (3) the reasonableness of its business behavior – its willingness to cooperate and helpfulness in solving problems; (4) its concern for the interests of its customers; and (5) its integrity.

The offeror will submit the Past Performance Questionnaire to each of the references listed on the Past Performance Matrix, a minimum of three (3) is required. The offeror shall instruct the references to complete the Past Performance Questionnaire and return it directly to:

**NAVSEA INDIAN HEAD DIVISION
101 Strauss Avenue
Indian Head MD 20640-5035
Attn: Brenda Price, Code 1143B, Bldg. 1558**

The offerors selected references must be listed on the Past Performance Matrix. **Failure of the references to submit the Past Performance Questionnaire to the contract specialist within the requested timeframe will result in the inability of the government to rank the offerors past performance.**

The offeror shall explain, if any, the role that subcontractors have played in contributing to the successes and/or failures of the offeror and to what extent subcontractors performance has contributed to the past performance evaluation.

VOLUME III - (Shall contain only the cost/price information and a complete copy of the RFP with all representations/certifications executed and pricing appropriately noted on in Section B or any continuation sheets)

6. Cost/Price

52.211-14 NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE (SEP 1990)

Any contract awarded as a result of this solicitation will be ☐ DX rated order; ☒ DO rated order certified for national defense use under the Defense Priorities and Allocations System (DPAS) (15 CFR 700), and the Contractor will be required to follow all of the requirements of this regulation. [Contracting Officer check appropriate box.]

(End of provision)

52.215-20 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997)

- (a) Exceptions from cost or pricing data. (1) In lieu of submitting cost or pricing data, offerors may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting

Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable.

(i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(ii) Commercial item exception. For a commercial item exception, the offeror shall submit, at a minimum, information on prices at which the same item or similar items have previously been sold in the commercial market that is adequate for evaluating the reasonableness of the price for this acquisition. Such information may include--

(A) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities;

(B) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market;

(C) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.

(2) The offeror grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this provision, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit information or other data relevant solely to the offeror's determination of the prices to be offered in the catalog or marketplace.

(b) Requirements for cost or pricing data. If the offeror is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The offeror shall prepare and submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.

As soon as practicable after agreement on price, but before contract award (except for unpriced actions such as letter contracts), the offeror shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

(End of provision)

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm fixed price contract resulting from this solicitation.

(End of clause)

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

[Insert one or more Internet addresses]

252.204-7001 COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE REPORTING (AUG 1999)

(a) The offeror is requested to enter its CAGE code on its offer in the block with its name and address. The CAGE code entered must be for that name and address. Enter "CAGE" before the number.

(b) If the offeror does not have a CAGE code, it may ask the Contracting Officer to request one from the Defense Logistics Information Service (DLIS). The Contracting Officer will--

(1) Ask the Contractor to complete section B of a DD Form 2051, Request for Assignment of a Commercial and Government Entity (CAGE) Code;

(2) Complete section A and forward the form to DLIS; and

(3) Notify the Contractor of its assigned CAGE code.

(c) Do not delay submission of the offer pending receipt of a CAGE code.

(End of provision)

252.211-7001 AVAILABILITY OF SPECIFICATIONS AND STANDARDS NOT LISTED IN DODISS, DATA ITEM DESCRIPTIONS NOT LISTED IN DOD 5010.12-L, AND PLANS, DRAWINGS, AND OTHER PERTINENT DOCUMENTS. (DEC 1991)

Offerors may obtain the specifications, standards, plans, drawings, data item descriptions, and other pertinent documents cited in this solicitation by submitting a request to:

(Activity)

(Complete Address)

Include the number of the solicitation and the title and number of the specification, standard, plan, drawing, or other pertinent document.

(End of Clause)

HQ L-2-0005 - NOTIFICATION OF POTENTIAL ORGANIZATIONAL CONFLICT(S) OF INTEREST (NAVSEA) (JUN 1994)

(a) Offerors are reminded that certain existing contractual arrangements may preclude, restrict or limit participation, in whole or in part, as either a subcontractor or as a prime contractor under this competitive procurement. Of primary concern are those contractual arrangements in which the Offeror provides support to NAVSEA, or related laboratories (if applicable), in support of operation of the office or any of its programs. General guidance may be found in FAR 9.505; however, this guidance is not all inclusive. The Offeror's attention is directed to the "Organizational Conflict of Interest" (or similar) requirement which may be contained in current or completed contract(s) which prohibits the prime or subcontractor from providing certain supplies or services to the Government as described above during the period of the current "support" contract(s) or for a period after completion of the "support" contract(s). Notwithstanding the existence or non-existence of an Organizational Conflict of Interest (OCI) clause or similar requirement in current or completed contract(s), the offeror shall comply with FAR 9.5 and identify whether an OCI exists and not rely solely on the presence of an OCI requirement.

(b) If a potential conflict of interest exists at any tier, each potential prime offeror is requested to notify the Contracting Officer within 14 days of the date of this solicitation. The Offeror shall provide: (1) the contract

number and name and phone number of the Contracting Officer for the contract which gives rise to a potential organizational conflict of interest; (2) a copy of the requirement; (3) the statement of work (or technical instruction) from the existing contract; (4) a brief description of the type of work to be performed by each subcontractor under the competitive procurement; and (5) any additional information the Contracting Officer should consider in making a determination of whether a conflict of interest exists. The Government may independently verify the information received from the offeror. Notwithstanding the above, the Government reserves the right to determine whether a conflict of interest exists based on any information received from any source.

(c) The Government will notify an offeror of any conflict of interest within 14 days of receipt of all required information. Those offerors deemed to have a conflict of interest may be ineligible for award. Failure to provide the information in a timely manner does not waive the Government's rights to make a conflict of interest determination. The offeror is notified that if it expends time and money on proposal preparation, such expenditure is at its own risk that the Government will not determine that an organizational conflict of interest exists.

(d) Any potential prime contractor which proposes a subcontractor later determined to have a conflict of interest and deemed ineligible to participate in the current competition, may not be granted the opportunity to revise its proposal to remove the ineligible subcontractor. The Government reserves the right to determine which offerors remain in the competitive range through the normal source selection process.

(e) If the offeror determines that a potential organizational conflict of interest does not exist at any tier, the offeror shall include a statement to that effect in its response to this solicitation.

HQ L-2-0010 - SUBSTITUTION OF PREVIOUSLY APPROVED SINGLE PROCESS INITIATIVE
(NAVSEA) (MAY 1998)

Your proposal shall identify where you are substituting your previously approved Single Process Initiative (SPI) processes for specified requirements. In addition, offerors shall provide the information required by DFARS 252.211-7005, paragraph (c).

SECTION M Evaluation Factors for Award

CLAUSES INCORPORATED BY REFERENCE:

52.217-5 Evaluation Of Options

JUL 1990

CLAUSES INCORPORATED BY FULL TEXT

SECTION M – EVALUATION FACTORS FOR AWARD

EVALUATION FACTORS FOR AWARD

1. GENERAL: The government shall award a contract resulting from this solicitation to the responsible offeror whose submission, complying with the instructions and conforming to the solicitation, represents the best overall value on the basis of an integrated assessment of the evaluation factors for award. Once all evaluations are complete and tabulated in accordance with the Source Selection Plan, the government will make a series of comparisons among the offerors by comparing the tabulated scores to the evaluated price or. From these comparisons the government will determine the offeror who offers the best value to the government. This is a subjective evaluation process.

2. RELATIVE IMPORTANCE OF THE EVALUATION FACTORS: Since an Offeror must comply with the instructions contained in the Instructions to Offerors it behooves an offeror to read carefully the instructions as the Contracting Officer may eliminate an Offeror from further consideration for failure to comply with the instructions. In deciding which of the offerors, complying with the instructions, is the best overall value the government will consider the following factors, listed in order of importance unless otherwise noted:

1. **Technical Comprehension**
2. **Production Capability**
3. **Management and Quality Assurance**
4. **Corporate Experience**

Note: Factors 2, 3 and 4 are equal in value

5. **Past Performance**

Note: Past Performance is equal in value to 1,2, 3 and 4 combined)

In evaluating past performance the Government will inquire about: 1) customer satisfaction, 2) timeliness of the work, 3) technical capability, 4) quality of work performed.

Past Performance shall be rated using the following descriptors:

Excellent - A significant majority of the sources of information are consistently firm in stating that the offeror's performance was superior, and they would unhesitatingly do business with the offeror again. Complaints are negligible or unfounded.

Good - Most sources of information state that the offeror's performance was good, deliverables are on time and meet contract requirements and they would be willing to do business with the offeror again. Complaints are few and relatively minor. Performance met expectations. Requests for cost adjustments and extensions of contract periods of performance are very infrequent. When a problem arises, the offeror reacts in a prompt, efficient, and effective manner to resolve the problem and minimize any delays.

Poor - A significant majority of sources of information are consistently firm in stating that performance was entirely unsatisfactory and that they would not, under any circumstances, do business with the offeror again. Customer complaints are substantial or numerous and well founded. Offeror has either presented no persuasive evidence of having taken appropriate corrective actions that will guard against such conduct in the future or it appears unlikely that the corrective action will be effective. The government/company and the offeror have expended a significant amount of time, effort, and cost in resolving problems. Failure to perform consistently has resulted in terminations and failure to provide customer service.

Neutral - Offeror has asserted that offeror does not possess any relevant directly related or similar past performance. The offeror receives no merit or demerit for this factor.

5. Cost/Price

Although cost/price is the least important factor, it will not be ignored. The degree of its importance will increase with the degree of equality of the offers in relation to the other factors on which selection is to be made.

Once all evaluations are complete the corresponding scores shall be tabulated and placed in a chart as follows in this example:

| <u>Offeror</u> | <u>Factor 1,2 & 3 Score*</u> | <u>Past Performance Rating</u> | <u>Cost/Price</u> |
|----------------|----------------------------------|--------------------------------|-------------------|
| A | 88 | Excellent | \$298,000 |
| B | 93 | Excellent | \$300,000 |
| C | 0 ** | | \$289,500 |
| D | 82 | Excellent | \$297,200 |
| E | 93 | Poor | \$297,500 |

* Not to exceed 100

** Offeror did not comply with RFP instructions - was not evaluated

Once this information is tabulated, offerors will be compared making value and price tradeoffs and award will be made to the offeror that represents the Best Value to the Government. If the offeror with the highest scores also represents the lowest price then that offeror is clearly the Best Value. If an offeror with higher scores has a higher price, then a determination must be made whether the difference in value is worth the higher price. In the example the government may award to Offeror A, Offeror B (if it could be determined whether the difference in greater value is worth the difference in price when compared to Offeror A), or Offeror D. Offeror E, even though reflective of a high technical score would be eliminated based on the POOR Past Performance rating.

PAST PERFORMANCE QUESTIONNAIRE COVER SHEET
FOR SOLICITATION NUMBER N00174-02-R-0048

Name of offeror questionnaire is being completed for: _____

Name of company completing questionnaire: _____

Name of the person and title completing questionnaire: _____

Length of time your firm has been involved with the offeror: _____

Type of work performed by referenced offer:

SUBMIT PAST PERFORMANCE QUESTIONNAIRE TO:

NAVAL SURFACE WARFARE CENTER
101 Strauss Avenue, Bldg 1558
Indian Head MD 20640-5035
Brenda Price, Contract Specialist, Code 1143B

BY: _____

PAST PERFORMANCE QUESTIONNAIRE INTERVIEW SHEET
SOLICITATION NUMBER: N00174-02-R-0048

RATING SCALE

Please use the following ratings to answer the questions. If you are unable to rate an item because it was not a requirement, never an issue, or you have no knowledge of the item in question then you should mark "N/A".

EVALUATION CRITERIA

| | |
|--------------------|---|
| Excellent - | The offerors performance was consistently superior. The contractual performance was accomplished with Few minor problems for which corrective action taken By the contractor were highly effective. |
| Good - | The offerors performance was good, better than average, Etc., and that they would willingly do business with the Offeror again. The contractual performance was Accomplished with some minor problems for which Corrective actions taken by the contractor were effective. |
| Neutral - | No record exists. |
| Average - | The offerors performances were between good and average and consideration would take part in awarding a contract to the offeror again. The contractual performance reflects a problem for which the contractor has not yet identified corrective actions. |
| Poor - | The offerors performance was entirely unsatisfactory And that they would not do business with the offeror again under any circumstances. The contractual performance of the element being assessed contains problems for which the contractor corrective actions appear to be or were ineffective. |

CUSTOMER SATISFACTION

- | | |
|---|---------------|
| 1. The referenced contractor was responsive to the Customers needs. | E G N A P N/A |
| 2. The contractors personnel were qualified To meet the requirements. | E G N A P N/A |
| 3. The contractors ability to accurately estimate Costs. | E G N A P N/A |

TIMELINESS

- | | |
|---|---------------|
| 4. The contractors ability to ensure, to the extent of Its responsibility, that all tasks were completed within The requested time frame. | E G N A P N/A |
|---|---------------|

TECHNICAL SUCCESS

- | | |
|--|---------------|
| 5. The contractor had a clear understanding of the work Detailed in the SOW. | E G N A P N/A |
| 6. The contractors ability to complete tasks correctly the first time. | E G N A P N/A |
| 7. The contractors ability to resolve problems. | E G N A P N/A |

QUALITY

- | | |
|---|---------------|
| 8. The contractors quality and reliability of services delivered. | E G N A P N/A |
| 9. Quality, reliability, and maintainability of hardware delivered. | E G N A P N/A |

PLEASE PROVIDE SUBJECTIVE REPOSSES FOR THE FOLLOWING:

10. Would you recommend this contractor for similar government contracts? Please explain:
11. Have you experienced special or unique problems with the referenced contractor that we should be aware of in making our decision?
12. In summary, which of the following would you choose to describe the quality of the referenced contractors service:
- Significantly better than acceptable
- Slightly better than acceptable
- Acceptable
- Slightly less than acceptable
- Entirely unacceptable
13. In summary, which of the following would you choose to describe reference contractors willingness to cooperate to resolve performance disagreements:
- Highly cooperative
- Cooperative
- Somewhat uncooperative
- Highly uncooperative

Thank you for taking the time to complete the above information.

Interviewers Name: _____, Date _____.

HQ M-2-0006 - EVALUATION OF PREVIOUSLY APPROVED SINGLE PROCESS INITIATIVE (NAVSEA)
(NOV 1996)

Previously approved Single Process Initiative (SPI) processes will be evaluated under the source selection criteria of the RFP. If the successful offeror has previously approved SPI processes in the proposal, those SPI processes will be incorporated into the contract upon award.

**HQ M-2-0011 WAIVER OF FIRST ARTICLE REQUIREMENTS (CONTRACTOR TESTING) (NAVSEA)
(JUL 2000)**

(a) If supplies identical or substantially identical to those called for in the Schedule have been previously furnished by the offeror and have been accepted by the Government, the first article requirements may be waived by the Government. The Offeror shall identify below the contract(s) under which supplies identical or substantially identical to those called for have been previously accepted by the Government:

Contract(s)

(b) All offerors should submit an offer on the basis that first article requirements will not be waived (hereinafter referred to as OFFER A). Offerors who believe, on the basis of paragraph (a) above, that they may qualify for waiver of first article may also submit an offer on the basis that the first article requirements will be waived (hereinafter referred to as OFFER B). This solicitation contains separate delivery schedules for OFFER A and OFFER B.

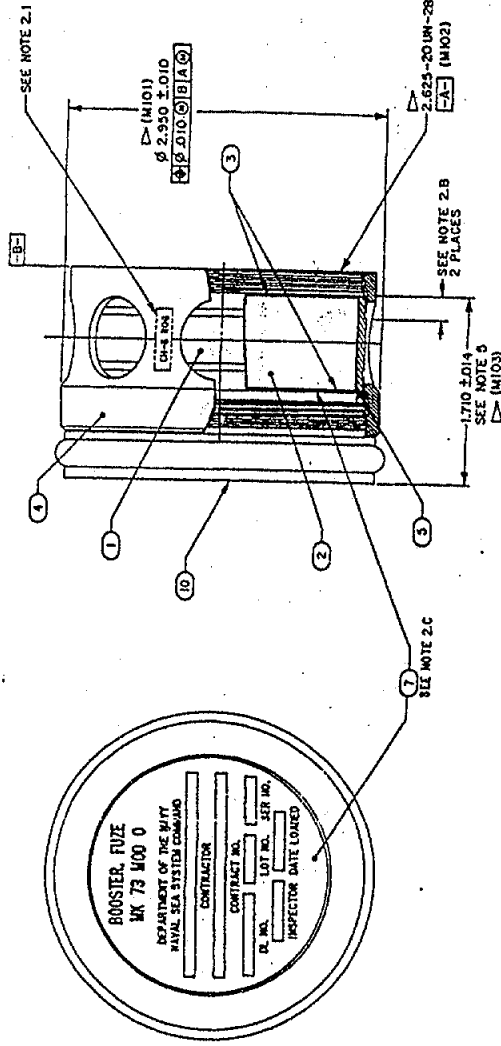
(c) Subject to considerations of responsiveness of offers and responsibility of Offerors and subject to other evaluation factors provided for in this solicitation, the price used in determining best value to the Government will be either the price submitted for OFFER A or the price submitted for OFFER B if the Government determines an offeror is eligible for first article waiver. The decision whether to grant a waiver is entirely at the discretion of the Government.

(d) Any award resulting from this solicitation will state whether the first article requirements are or are not waived. In the event of waiver, all clauses and references relating to the first article will not apply.

NOTES:

1. BOOSTER SHALL BE IN ACCORDANCE WITH WS 32616 AND THE REQUIREMENTS OF THIS DRAWING.
2. ASSEMBLY:
 - A. FIT HOUSING BETWEEN PELLET HOUSING (ITEM 1) AND PELLET (ITEM 2) WITH ELASTOMER (ITEM 6).
 - B. APPLY A COATING OF ELASTOMER (ITEM 6) TO HOUSING (ITEM 1) AND PELLET HOUSING (ITEM 2). INSTALL HOUSING CLOSURE (ITEM 3). TWIST ONE QUARTER TURN.
 - C. APPLY IDENTIFICATION PLATE (ITEM 7) IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. TO HOUSING CLOSURE (ITEM 3) IN LOCATION SHOWN.
 - D. INSTALL PELLET HOUSING (ITEM 1) INTO BOOSTER SLEEVE (ITEM 4) AS SHOWN.
 - E. INSTALL RETAINING RING (ITEM 5) IN GROOVE OF BOOSTER SLEEVE (ITEM 4).
 - F. PRELOAD PELLET HOUSING (ITEM 1) AGAINST RETAINING RING (ITEM 5).
 - G. FILL ANNUAL SPACE BETWEEN BOOSTER SLEEVE (ITEM 4) AND PELLET HOUSING (ITEM 1) WITH THICKENED ELASTOMER (ITEM 6) PREPARED IN ACCORDANCE WITH NOTE 3.
 - H. WIRE EXCESS ELASTOMER (ITEM 6) FROM EXTERIOR OF SLEEVE. PORT HOLES OF SLEEVE AND ALL THREADS.
 - I. MARK IN ACCORDANCE WITH MIL-STD-150, METHOD OPTIONAL IN IDENTIFICATION WITH CHARACTERS IN TWO PLACES APPROXIMATELY 180° APART.
 - J. PRIOR TO PACKAGING, VIBRATION ISOLATOR ASSEMBLY (ITEM 10) SHALL BE SHIPPED INTO BOOSTER SLEEVE (ITEM 4) AND HAND TIGHTENED AS SHOWN.
3. PREPARE THICKENED ELASTOMER (ITEM 6) AS FOLLOWS:
 - A. MIX 40 PARTS BY VOLUME OF ELASTOMER (ITEM 6) COMPONENT A WITH ONE PART SILICON DIOXIDE (ITEM 9).
 - B. MIX 40 PARTS BY VOLUME OF ELASTOMER (ITEM 6) COMPONENT B WITH ONE PART SILICON DIOXIDE (ITEM 9).
 - C. THOROUGHLY MIX THICKENED ELASTOMER COMPONENTS UNTIL VISUAL COLOR UNIFORMITY IS OBTAINED.
 - D. WORKING LIFE AND CURING CONDITIONS SHALL BE DETERMINED IN ACCORDANCE WITH THE ELASTOMER (ITEM 6), MANUFACTURER'S DATA.
 - E. VENDOR ITEM: SEE SOURCE CONTROL DRAWING.
 - F. DIMENSIONS INDICATED BY INTERFERENCE CONTROL. DIMENSION, SIZE AND LOCATION SHALL NOT BE MODIFIED WITHOUT AN ENGINEERING CHANGE. THE (0.710 ± 0.014) DIMENSION SHALL BE MEASURED AS A TOTAL LENGTH FOR INTERFERENCE CONTROL WHEN BOOSTER IS ASSEMBLED WITH MK 54 MOD 0 S-A.

CAUTION: THIS FUZE BOOSTER CONSTITUTES A SIGNIFICANT BOOSTER SPECIFICATION WS-32616 FOR ADDITIONAL DETAILS.

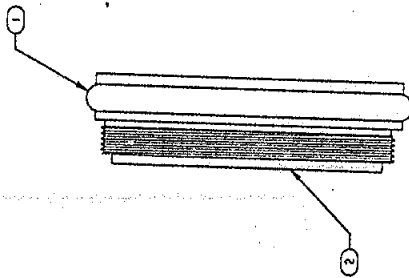


| ITEM NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|----------|-------------|---------|-------------------------|-------------|
| 10 | 1 | 6503335 | VIBRATION ISOLATOR ASSY | |
| 9 | 1 | | SILICON DIOXIDE | MIL-S-47823 |
| 8 | 1 | 6503333 | PLATE IDENTIFICATION | |
| 7 | 1 | 6503347 | ELASTOMER, SILICONE | |
| 6 | 1 | 6503346 | RING, RETAINING | |
| 5 | 1 | 6503334 | SLEEVE BOOSTER | |
| 4 | 1 | 6503345 | CLOSURE, HOUSING | |
| 3 | 1 | 6503344 | HOUSING, PELLET | |
| 2 | 1 | 6503336 | PELLET | |
| 1 | 1 | | BOOSTER, FUZE ASSEMBLY | |

| | | | |
|------------|-------------|---------------------------------------|-------------------------|
| PARTS LIST | | BOOSTER, FUZE ASSEMBLY MK 73 MOD 0 | |
| ITEM NO. | DESCRIPTION | QTY | UNIT |
| 10 | 1 | 6503335 | VIBRATION ISOLATOR ASSY |
| 9 | 1 | | SILICON DIOXIDE |
| 8 | 1 | 6503333 | PLATE IDENTIFICATION |
| 7 | 1 | 6503347 | ELASTOMER, SILICONE |
| 6 | 1 | 6503346 | RING, RETAINING |
| 5 | 1 | 6503334 | SLEEVE BOOSTER |
| 4 | 1 | 6503345 | CLOSURE, HOUSING |
| 3 | 1 | 6503344 | HOUSING, PELLET |
| 2 | 1 | 6503336 | PELLET |
| 1 | 1 | | BOOSTER, FUZE ASSEMBLY |

DEPARTMENT OF AMPLIFIED CLASSIFICATION OF CHARACTERISTICS ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH TOP SECRET 00-117-2101.

1. VIBRATION ISOLATOR RING (ITEM II) SHALL BE INSTALLED ON VIBRATION ISOLATOR FRAME (ITEM 2) IN SPACE PROVIDED AS SHOWN.
2. MARKING SHALL BE IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.




SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS
OF THIS DRAWING, CLASSIFIED IN ACCORDANCE WITH
DOD-STD-2101.

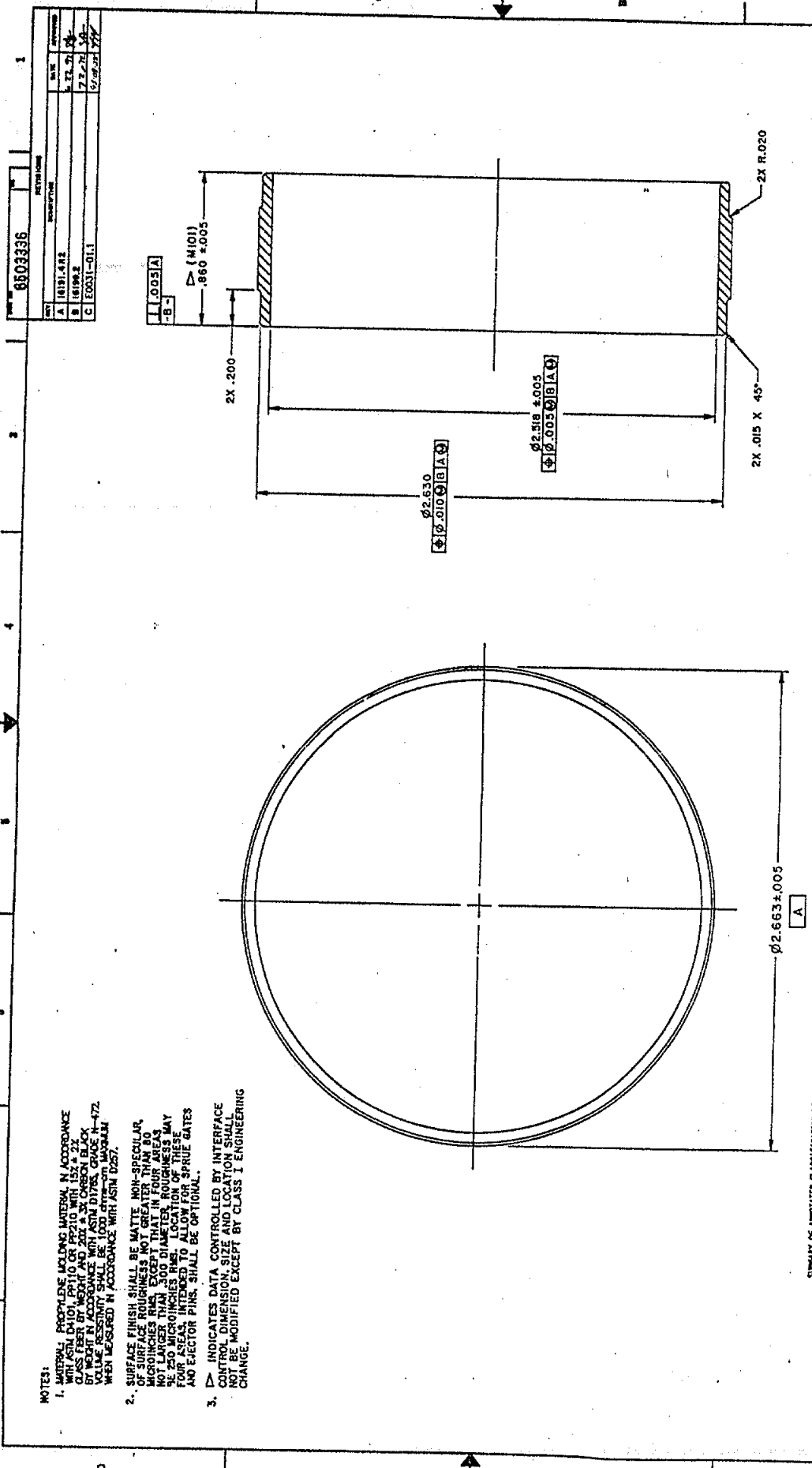
| CLASSIFICATION | TOTAL PAGE NUMBER |
|--------------------|-------------------------|
| CLASSIFICATION (C) | |
| PARA (N) | |
| PARA (200 SERIES) | |

UNLESS OTHERWISE SPECIFIED, AS A MINIMUM REQUIREMENT,
CLASSIFICATIONS SHALL BE VERIFIED IN ACCORDANCE WITH
DOD-STD-2101.

| ITEM NO. | QTY | UNIT | DESCRIPTION | REMARKS |
|----------|-----|------|--------------------------|---------|
| 2 | 1 | | FRAME VIBRATION ISOLATOR | |
| 1 | 1 | | RING VIBRATION ISOLATOR | |

[illegible][illegible]


 Pitt-Corporation
 Contract no. 84033-84-C-032



| | | | | | | | |
|---|--|--|--|--|--|--|--|
| 8503336 PART NAME HOUSING, PELLET | | DRAWING NO. D 53711 | | SCALE 4/1 | | SHEET 1 | |
| MATERIAL 1. 18-8 (304) STAINLESS STEEL 2. 304 STAINLESS STEEL 3. 304 STAINLESS STEEL | | FINISH 1. 100 MICROINCHES RMS 2. 100 MICROINCHES RMS 3. 100 MICROINCHES RMS | | TOLERANCES 1. 100 MICROINCHES 2. 100 MICROINCHES 3. 100 MICROINCHES | | INSPECTION 1. 100 MICROINCHES 2. 100 MICROINCHES 3. 100 MICROINCHES | |
| DIMENSIONS 1. 2.663 ± 0.005 2. 2.530 3. 2.518 ± 0.005 | | WEIGHT 1. 0.001 2. 0.001 3. 0.001 | | VOLUME 1. 0.001 2. 0.001 3. 0.001 | | SURFACE AREA 1. 0.001 2. 0.001 3. 0.001 | |

- NOTES:
1. MATERIAL: 304 STAINLESS STEEL, 18-8 (304) STAINLESS STEEL, 304 STAINLESS STEEL. FINISH: 100 MICROINCHES RMS. DIMENSIONS: 2.663 ± 0.005, 2.530, 2.518 ± 0.005. WEIGHT: 0.001. VOLUME: 0.001. SURFACE AREA: 0.001.
 2. OF SURFACE FINISH SHALL BE MATTE, NON-SPECULAR, WITH A ROUGHNESS NOT GREATER THAN 100 MICROINCHES RMS. EXCEPT THAT IN FOUR AREAS, 100 MICROINCHES RMS, 300 DIAMETER, ROUGHNESS MAY BE 250 MICROINCHES RMS. LOCATION OF THESE FOUR AREAS, INTENDED TO ALLOW FOR SPRUE GATES AND EJECTOR PINS, SHALL BE OPTIONAL.
 3. DIMENSIONS DATA CONTROLLED BY INTERFACE CONTROL DESIGN. SIZE AND LOCATION SHALL NOT BE MODIFIED EXCEPT BY CLASS 1 ENGINEERING CHANGE.

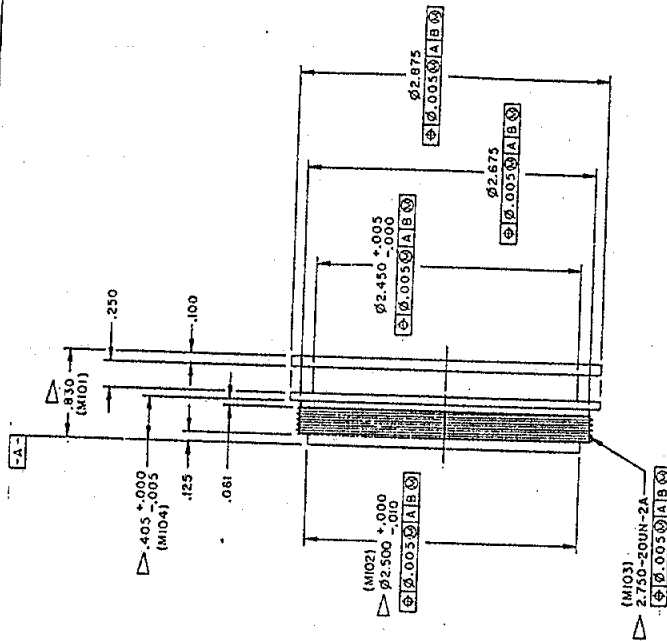
SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS OF THIS PARTIAL CLASSIFICATION IN ACCORDANCE WITH 240-478 2101.

| CLASSIFICATION | NOTE |
|----------------|------|
| CRITICAL (C) | 1 |
| MAJOR (M) | 1 |
| MINOR (M) | 1 |

UNLESS OTHERWISE SPECIFIED AS A MINOR REQUIREMENT, CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH 240-478 2101.

NOTES:

1. MATERIAL: ALUMINUM ALLOY BAR, 6061-T6 OR T631 IN ACCORDANCE WITH FED-STD-4130, CLASS 1A. ALTERNATE: ALUMINUM ALLOY BAR, 6061-T6 OR T631 IN ACCORDANCE WITH QQ-A-200/8.
2. FINISH: CHEMICAL CONVERSION COATING IN ACCORDANCE WITH MIL-C-3341, CLASS 1A.
3. INTERPRET THREAD DIMENSIONS IN ACCORDANCE WITH FED-STD-H28. INSPECTION OF NEW FEED-STD-H28/20 SYSTEM 22.
4. MARKING SHALL BE IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.
5. Δ INDICATES DATA CONTROLLED BY INTERFACE CONTROL DOCUMENT. LOCATION SHALL NOT BE MODIFIED EXCEPT BY CLASS I ENGINEERING CHANGE.

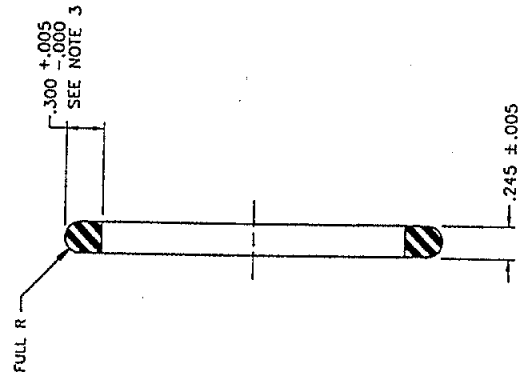


SUPPORT OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH FED-STD-4130

CLASSIFICATION
 CRITICAL (C)
 PLANT (P)
 MIL (M)
 MIL (M) SERIES
 UNLESS OTHERWISE SPECIFIED, AS A MINIMUM REQUIREMENT, CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH FED-STD-4130.

| | |
|---|-------------------------------------|
| DEPARTMENT OF THE ARMY MILITARY DISTRICT OF THE ARMY HEADQUARTERS, WASHINGTON, D.C. | |
| FRAME, VIBRATION ISOLATOR | |
| PART NUMBER 6503339 | DATE 53711 |
| SCALE 2/1 | SHEET 1 |
| DESIGNED BY W. J. H. H. H. | CHECKED BY W. J. H. H. H. |
| DRAWN BY W. J. H. H. H. | ENGINEER W. J. H. H. H. |
| MATERIAL 6061-T6 | FINISH 6061-T6 |
| QUANTITY 100 | DATE 53711 |
| APPROVED FOR PRODUCTION W. J. H. H. H. | DATE 53711 |

1. MATERIAL: RUBBER, FLUOSILICONE ELASTOMER IN ACCORDANCE WITH MIL-R-25988, TYPE II, CLASS I, GRADE 70.
2. MARKING SHALL BE IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.
3. MEASUREMENT OF 300 +.005/- .000 DIMENSION SHALL BE MEASURED WHILE DATUM -A- IS PLACED OVER A 2.540 ±.001 DIAMETER WANDERL.




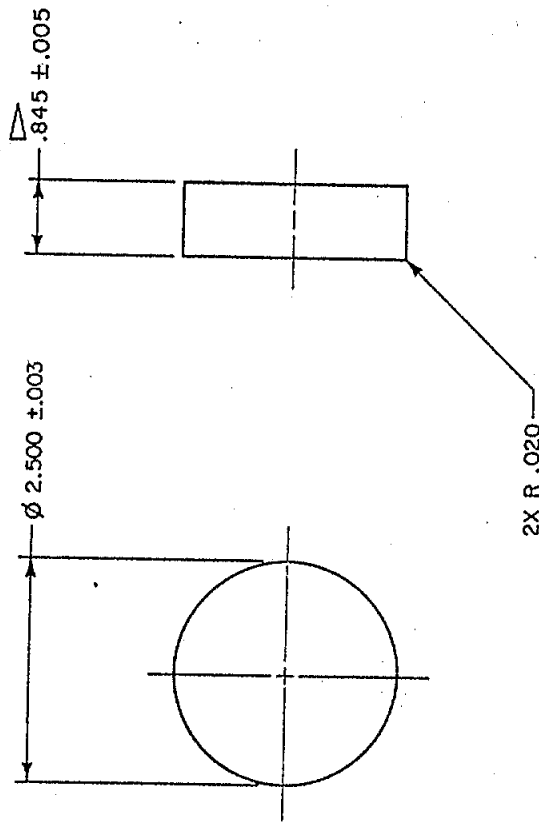
✓ That's Temper's You

| SUPPORT OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS ON THIS DRAWING DOO-310-2101. | | TOTAL | |
|---|---|--------------|--------------|
| CLASSIFICATION CRITICAL (C) | CLASSIFICATION NON-CRITICAL (NC) | DOO-310-2101 | DOO-310-2101 |
| UNLESS OTHERWISE SPECIFIED, ALL CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH DOO-310-2101. | UNLESS OTHERWISE SPECIFIED, ALL CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH DOO-310-2101. | DOO-310-2101 | DOO-310-2101 |

1. MATERIAL: COMPOSITION CH-6 (RDX) IN ACCORDANCE WITH MIL-C-21723.
2. PELLET MAY BE PRESSED IN ONE OR MORE INCREMENTS. PELLET DENSITY SHALL BE $1.64 \pm .03$ GRAMS PER CUBIC CENTIMETER. THE APPROXIMATE QUANTITY OF COMPOSITION CH-6 WILL BE 110 GRAMS.

3. PELLET SHALL BE FREE OF ALL SURFACE OR INTERNAL CRACKS, VOIDS OR INCLUSIONS AND SURFACE PITS OR CHECKS EXCEPT THAT PELLET CORNERS MAY HAVE PITS. CHECKS OR CRACKS WHICH ARE TOTALLY CONTAINED WITHIN THE TOLERANCE ZONE OF THE $.020 \pm 0.010$ RADIUS, CONFORMANCE WITH THESE REQUIREMENTS SHALL BE VERIFIED IN ACCORDANCE WITH MIL-STD-453, RADIOGRAPHIC QUALITY LEVEL 2.

4.  INDICATES DATA CONTROLLED BY INTERFACE CONTROL DIMENSION. SIZE AND LOCATION SHALL NOT BE MODIFIED EXCEPT BY CLASS I ENGINEERING CHANGE.




DISTRIBUTION STATEMENT B: DISTRIBUTION AUTHORIZED TO DOD AND DOD CONTRACTORS ONLY: CRITICAL TECHNOLOGY: SEPTEMBER 1986. OTHER REQUESTS SHALL BE FORWARDED TO THE DISSEM/STICOM (PWS-422). NO DISTRIBUTION OF THIS REPORT SHALL BE MADE TO DEFENSE TECHNICAL INFORMATION CENTER (DTIC). NO SECONDARY DISTRIBUTION AUTHORIZED WITHOUT PRIOR WRITTEN APPROVAL OF THE COMNAVSEA-3120N (ACT). THIS DOCUMENT CONTAINS TECHNICAL DATA WHOSE EXPORT IS RESTRICTED BY THE ARMS EXPORT CONTROL ACT (TITLE 22, U.S.C. SECTION 6001). EXECUTIVE ORDER 122579. VIOLATIONS OF THESE EXPORT LAWS ARE SUBJECT TO SEVERE CRIMINAL PENALTIES. IT IS THE POLICY OF THE U.S. GOVERNMENT THAT THIS INFORMATION BE DESTROYED BY ANY METHOD THAT WILL PREVENT DISCLOSURE OR RECONSTRUCTION OF THE DATA.

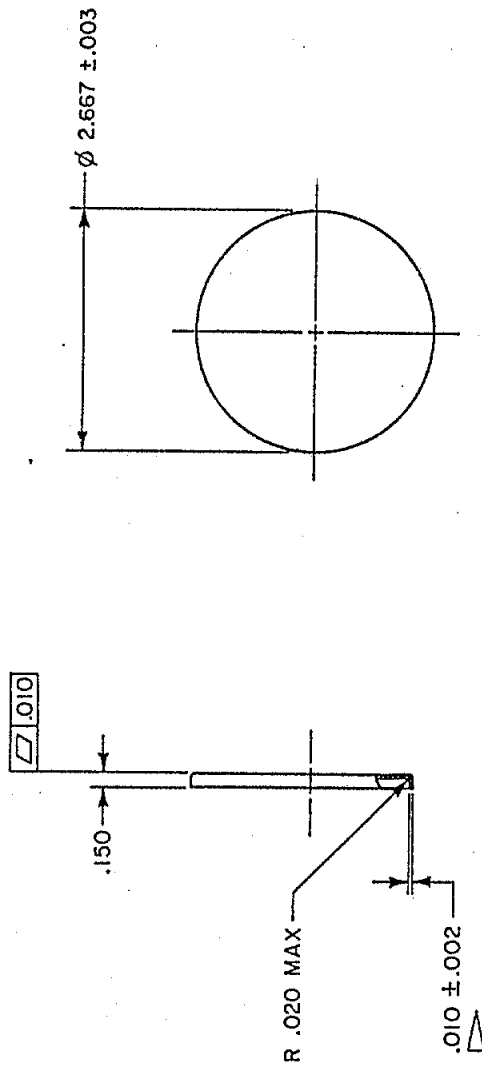
SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS
ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH
DDO STD-2101.

CLASSIFICATION
CRITICAL (C)
MAJOR (M)
MINOR (200 SERI

UNLESS OTHERWISE SPECIFIED, AS A MINIMUM REQUIREMENT, CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH DOD-STD-2101.

[illegible]

1. MATERIAL: ALUMINUM ALLOY, 6061 SHEET IN ACCORDANCE WITH QQ-A-250VIL, TEMPER F.
2. FINISH: ANODIC COATING IN ACCORDANCE WITH MIL-A-8625, TYPE II, CLASS 2, YELLOW COLOR NO. 13538, 23538 OR FED-STD-595.
3.  INDICATES DATA CONTROLLED BY INTERFACE CONTROL DIMENSION. SIZE AND LOCATION SHALL NOT BE MODIFIED EXCEPT BY CLASS 1 ENGINEERING CHANGE.



DISTRIBUTION STATEMENT OF THIS DOCUMENT IS RESTRICTED TO DOD AND DOD CONTRACTORS ONLY. CRITICAL TECHNOLOGY, SEPTEMBER 1980. OTHER REQUESTS SHALL BE REFERRED TO THE TECHNICAL INFORMATION CENTER (PMIS-4227). NO DISTRIBUTION OF THIS REPORT SHALL BE MADE TO DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR ANY SECONDARY DISTRIBUTION AUTHORIZED WITHOUT PRIOR WRITTEN APPROVAL OF THE COMPAUSE-SYSTEM (PMIS-4227).

THIS DOCUMENT CONTAINS TECHNICAL DATA WHOSE EXPORT IS RESTRICTED BY THE ARMS EXPORT CONTROL ACTING IN CONFORMANCE WITH THE EARNS ACT. UNLAWFUL DISSEMINATION, REPRODUCTION, TRANSMISSION, OR THESE EXPORT LAWS ARE SUBJECT TO SEVERE CRIMINAL PENALTIES. DESTROYING OR ATTEMPTING TO DESTROY BY ANY METHOD THAT WILL PREVENT DISCLOSURE OF CONTENTS OR RECONSTRUCTION OF THE DOCUMENTS BY ANY MEANS IS PROHIBITED.

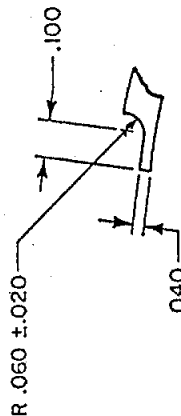
SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS
ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH

| CLASSIFICATION | TOTAL |
|--------------------|-------|
| CRITICAL (C) | NONE |
| MAJOR (M) | NONE |
| MINOR (200 SERIES) | NONE |

UNLESS OTHERWISE SPECIFIED, AS A MINIMUM REQUIREMENT,
CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH
DOD-SID-2101.

[illegible]

1. MATERIAL: STEEL SHEET OR STRIP, CORROSION RESISTING IN ACCORDANCE WITH QQ-S-766, CLASS 301 OR 302, TEMPER 1/2 HARD, FINISH NUMBER 1.
- ALTERNATE: STEEL FLAT WIRE, CORROSION RESISTING IN ACCORDANCE WITH QQ-S-763, CLASS 302, CONDITION OPTIONAL.
2. FINISH: PASSIVATION IN ACCORDANCE WITH QQ-P-35, TYPE VI OR VII.
3. BLANKED EDGE ACCEPTABLE WITHIN 250' MAX.
4. AS FINISHED RING SHALL NOT DEVIATE FROM FLAT MORE THAN .020 IN ANY 1.00 LENGTH.



VIEW A
SCALE: 4/1
2 PLACES

1. DISTRIBUTION STATEMENT OF THIS DOCUMENT IS LIMITED TO GOOD AND GOOD CONTRACTORS ONLY. CRITICAL TECHNOLOGY, SEPTEMBER 1988. OTHER REQUESTERS SHALL BE REFERRED TO COMANSEA-SSCOM (PROCESSES) FOR NO DISTRIBUTION OF THIS REPORT SHALL BE MADE TO DEFENSE TECHNICAL INFORMATION CENTER (DTIC). NO SECONDARY DISTRIBUTION AUTHORIZED WITHOUT PRIOR WRITTEN APPROVAL OF THE COMANSEA-SSCOM (PROCESSES).

2. THIS DOCUMENT CONTAINS TECHNICAL DATA WHOSE EXPORT IS RESTRICTED BY THE ARMS EXPORT CONTROLS ACT, 1987. THESE EXPORT LAWS ARE SUBJECT TO SEVERAL CRIMINAL PENALTIES. DESTRUCTION NOTICE BY ANY METHOD THAT WILL PREVENT DISCLOSURE OF CONTENTS OR RECONSTRUCTION OF THE DOCUMENT.

(Paging - 1422)

SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS
ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH
000-STD-2101.

| CLASSIFICATION | TOTAL |
|--------------------|-------|
| CRITICAL (C) | NONE |
| MAJOR (M) | NONE |
| MINOR (200 SERIES) | NONE |

UNLESS OTHERWISE SPECIFIED, AS A MINIMUM REQUIREMENT,
CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH
DOD-SIP-2101.

[illegible]

| INSTRUCTIONS | | DATE | | PAGE | | TOTAL | |
|--------------|-------------|------|------|------|-------------|-------|------|
| NO. | DESCRIPTION | DATE | TIME | NO. | DESCRIPTION | DATE | TIME |
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| 97 | ... | ... | ... | 98 | ... | ... | ... |
| 99 | ... | ... | ... | 100 | ... | ... | ... |

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| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
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NOTES:

- ONLY THE ITEM DESCRIBED ON THIS DRAWING WHEN PROCURED FROM THE VENDORS(S) LISTED HEREON IS APPROVED BY THE NAVAL AIR WARFARE CENTER, WEAPONS DIVISION, CHINA LAKE, CA FOR USE IN THE APPLICATION(S) SPECIFIED HEREON. A SUBSTITUTE ITEM SHALL NOT BE USED WITHOUT PRIOR APPROVAL BY THE NAVAL AIR WARFARE CENTER, WEAPONS DIVISION, CHINA LAKE, CA OR BY THE NAVAL SEA SYSTEMS COMMAND, WASHINGTON, D.C. 20360.
- MATERIAL: TWO-PART SILICONE ELASTOMER WITH A PHYSICAL FORM OF FLEXIBLE RUBBER AS CURED. ELASTOMER SHALL BE IN ACCORDANCE WITH MIL-S-23586, TYPE I, CLASS 2, GRADE B-2, EXCEPT AS OTHERWISE SPECIFIED HEREIN.
- PHYSICAL CHARACTERISTICS (CURED 30 MINUTES AT 70°C (158°F)):

| PROPERTY | REQUIREMENTS | TEST METHOD |
|--------------------------------|--------------|----------------------------|
| A. DUROMETER HARDNESS, SHORE A | 55 MIN | ASTM D 2240 |
| B. TENSILE STRENGTH | 500 PSI MIN | ASTM D 412 METHOD A, DIE C |
| C. ELONGATION | 150% MIN | ASTM D 412 METHOD A, DIE C |
- SILICONE ELASTOMER SHALL BE CURED WITHOUT EXOTHERM OR CORROSIVE BY-PRODUCTS.
- CONFORMANCE TO THE REQUIREMENTS OF THIS DRAWING SHALL BE DETERMINED IN ACCORDANCE WITH THE PROCEDURES OF MIL-STD-105, SAMPLING PROCEDURES AND TABLES FOR INSPECTION BY ATTRIBUTES. CRITERIA FOR SAMPLING AND ACCEPTANCE SHALL BE INSPECTION LEVEL II FOR ALL ATTRIBUTES LISTED ON THIS DRAWING.
- SHELF LIFE RESTRICTIONS, IF ANY, SHALL BE FURNISHED BY THE MANUFACTURER WITH EACH LOT SUPPLIED. THE DATE OF MANUFACTURE SHALL BE MARKED ON EACH CONTAINER.
- CONTAINER SIZE AND CONFIGURATION SHALL BE AT THE MANUFACTURER'S OPTION.
- IDENTIFICATION OF THE APPROVED SOURCE(S) HEREON IS NOT TO BE CONSTRUED AS A GUARANTEE OF PRESENT OR CONTINUED AVAILABILITY AS A SOURCE OF SUPPLY FOR THE ITEM DESCRIBED ON THE DRAWING.

DISTRIBUTION STATEMENT BY: DISTRIBUTION AUTHORIZED TO DOD AND DOD CONTRACTORS ONLY: CRITICAL TECHNOLOGY: SEPTEMBER 1988. OTHER REQUESTS SHALL BE REFERRED TO COMNAVSEA-STSCOM (PMG-422). NO DISTRIBUTION OF THIS REPORT SHALL BE MADE TO DEFENSE TECHNICAL INFORMATION CENTER (DTIC). (PMG-422).

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SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH DOD-STD-2101.

| CLASSIFICATION | TOTAL |
|--------------------|-------|
| MAJOR (M) | NONE |
| MINOR (C00 SERIES) | NONE |

UNLESS OTHERWISE SPECIFIED, AS A MINIMUM REQUIREMENT, CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH DOD-STD-2101.

APPROVED SOURCES(S) OF SUPPLY

| VENDOR | VENDOR ITEM NO. |
|---|-------------------|
| DOW CORNING CORP. ELASTOMERS DIV. MIDLAND, MI 48640 | SYLGARD 170 A & B |

CAGE CODE: 71984

UNLESS OTHERWISE SPECIFIED

EXAMINATION AND IN FOLDS

ANALYSIS: _____

FUNCTION: _____

USE: _____

DO NOT SCALE THIS DRAWING

INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

PRGM DSGN

CA

DWG

9/1/92

MATL

9/1/92

RELBL

9/1/92

APPROVED FOR PRODUCTION

DATE: 9/2/92

BY: J. L. Perry

ELASTOMER, SILICONE

CAGE CODE: C 53711

6503347

SOURCE CONTROL DRAWING

DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND

WASHINGTON D.C. 20360

APPROVED FOR PRODUCTION

DATE: 9/2/92

BY: J. L. Perry

APPROVED FOR PRODUCTION

DATE: 9/2/92

BY: J. L. Perry

APPROVED FOR PRODUCTION

DATE: 9/2/92

BY: J. L. Perry

APPROVED FOR PRODUCTION

DATE: 9/2/92

BY: J. L. Perry

A. FILL VOIDS BETWEEN PELLET HOUSING (ITEM 1) AND PELLET (ITEM 2) WITH ELASTOMER (ITEM 6).

- CAUTION:** THIS FUZE BOOSTER CONSTITUTES A SIGNIFICANT PERSONNEL AND MATERIAL HAZARD. SEE FUZE BOOSTER SPECIFICATION WS-32616 FOR ADDITIONAL DETAILS.

BOOSTER, FUZE
MK 73 MOD 0
DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
CONTRACTOR
CONTRACT NO.
Q. NO. LOT NO. SER. NO.
INSPECTOR DATE LOADED

2

0-

Q

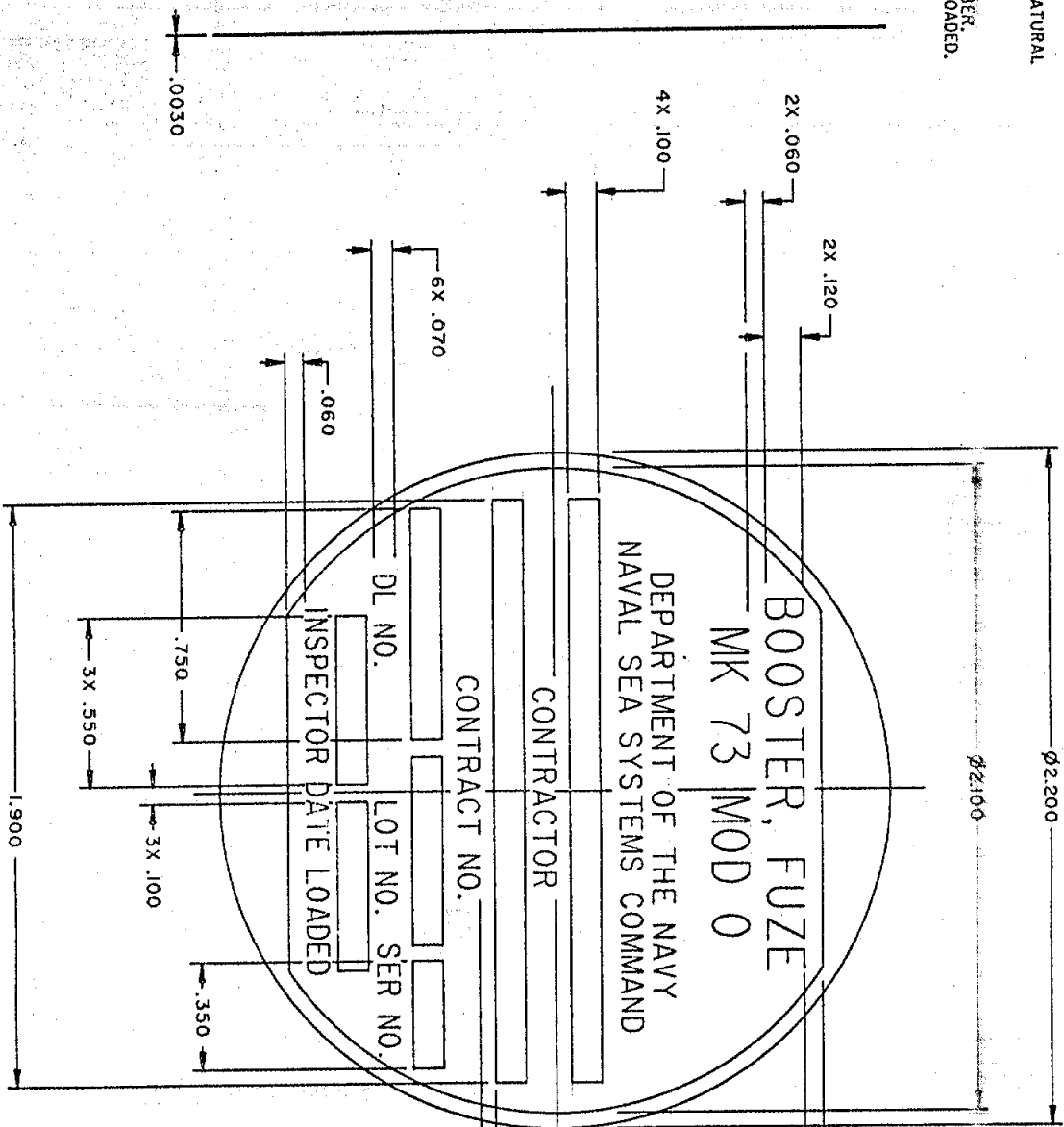
[illegible][illegible]

1. IDENTIFICATION PLATE SHALL BE IN ACCORDANCE WITH MIL-P-19834, TYPE I, COLOR STYLE III, EXCEPT AS OTHERWISE NOTED HEREON AND PLATE DIAMETER AND THICKNESS SHALL BE AS SHOWN.
2. CHARACTERS AND BLANK SPACES SHALL BE SYMMETRICALLY LOCATED IN POSITIONS SHOWN.
3. CHARACTERS, BORDER AND BLANK SPACES SHALL BE NATURAL IN COLOR AGAINST A BLACK BACKGROUND.
4. MARK IDENTIFICATION PLATE IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL WITH CONTRACT NUMBER, CONTRACTORS NAME, LOT NUMBER, MONTH AND YEAR LOADED, INSPECTORS SYMBOL, AND DATA LIST NUMBER IN SPACES PROVIDED.

SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS
ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH
DOD-STD-2101.

| CLASSIFICATION | TOTAL |
|--------------------|-------|
| CRITICAL (C) | NONE |
| MAJOR (M) | NONE |
| MINOR (200 SERIES) | NONE |

UNLESS OTHERWISE SPECIFIED, AS A MINIMUM REQUIREMENT CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH DDG-SID-210L.



| | | | | | |
|--|----------------------|---|--|---|--|
| DOCUMENTATION (CAF) MAIL STOPPING CENTER 3000 LANE 12 WASHINGTON, D.C. 20334 | 6503332 NEXT ASSY | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TO FRACTIONS | MADE IN U.S.A. FRACTIONS & DECIMALS & 020 PART SHALL BE PRICE OF BURNS BROOKS ENGINE & MFG SURFACE FINISHES | BY DIRECTION APPROVED FOR PROTOTYPE PROO DATE | MAIL STOPPING CENTER 3000 LANE 12 WASHINGTON, D.C. 20334 |
| | | DO NOT SCALE THIS DRAWING INTERPRET DRAWING IN ACCORDANCE WITH ASME Y14.5-1994 | BY DIRECTION APPROVED FOR PROTO/LIMITED PROO DATE | APPROVED FOR ESTIMATE | APPROVED FOR ESTIMATE |

1. MATERIAL: ALUMINUM ALLOY, 6061, ROD IN ACCORDANCE WITH QQ-A-225/9. TEMPER T6 OR T651.
ALTERNATE: ALUMINUM ALLOY TUBE, 6061, IN ACCORDANCE WITH WW-1-700/6, TEMPER T6, TYPE I.

A. ANODIC COATING IN ACCORDANCE WITH MIL-A-8625, TYPE II, CLASS 2, COLOR YELLOW, COLOR NO. 13538 OR 33538 IN ACCORDANCE WITH FED-STD-595;

B. APPLY PRIMER COATING IN ACCORDANCE WITH MIL-F-18264. USING MIL-P-23377, TYPE I, CLASS OPTIONAL.

(MOM) C
PAINT IN ACCORDANCE WITH MIL-F-18264,
USING ACRYLIC LACQUER IN ACCORDANCE
WITH MIL-T-81352, COMPOSITION OPTIONAL.
ALTERNATE: POLYURETHANE ALIPHATIC
ISOCYANATE IN ACCORDANCE WITH
MIL-C-83286, TYPE OPTIONAL. COLOR
YELLOW. COLOR NO. 13538 OR 25338 IN
ACCORDANCE WITH FED-STD-595.

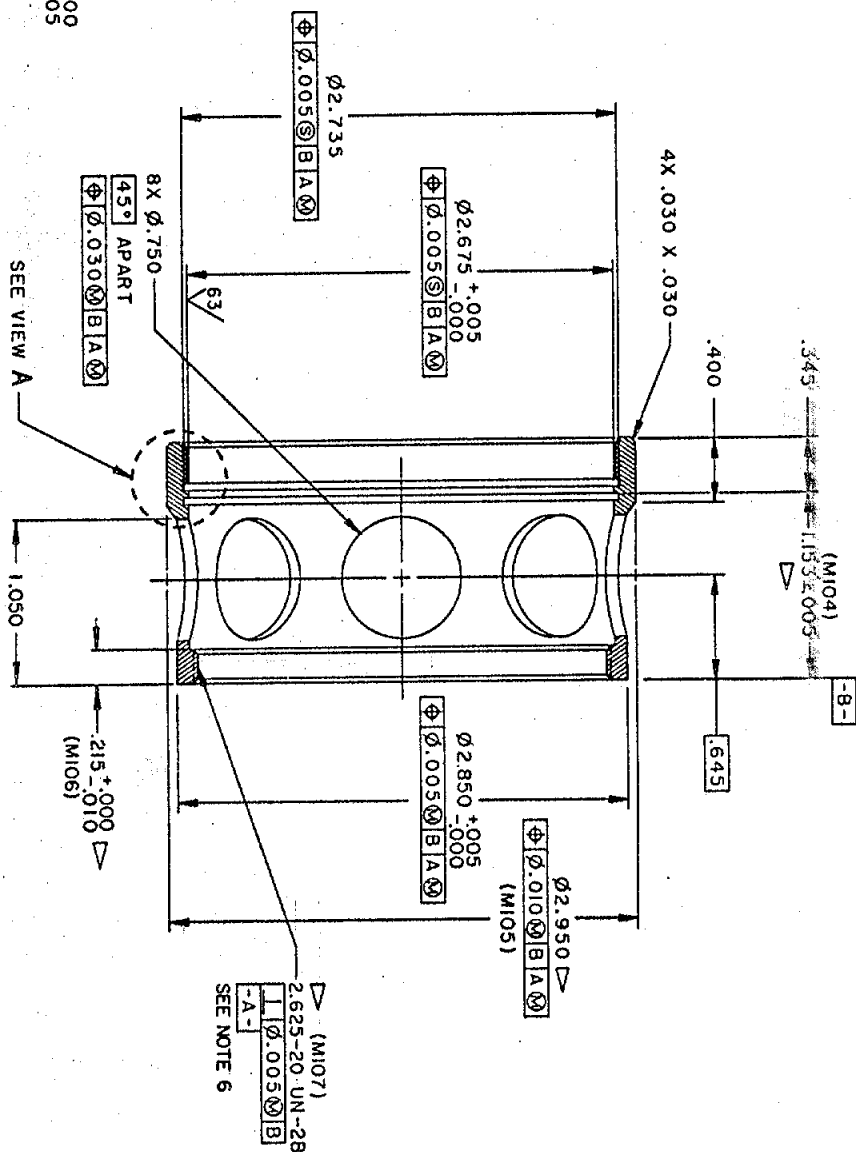
D. PAINT AND PRIMER SHALL NOT BE PERMITTED ON THE INTERIOR SURFACE. PAINT AND PRIMER ON CHAMFERED EDGES AND INSIDE DIAMETERS OF THE .750 HOLES WILL BE ACCEPTABLE.

3. SCREW THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28
INSPECTION OF SCREW THREADS SHALL BE IN ACCORDANCE
WITH FED-STD-H28/20 SYSTEM 22.

4. ALL DIMENSIONS SHALL APPLY AFTER ANODIC COATING BEFORE PRIMER AND PAINT.

5. ☒ INDICATES DATA CONTROLLED BY INTERFACE CONTROL DIMENSION. SIZE AND LOCATION SHALL NOT BE MODIFIED EXCEPT BY CLASS I ENGINEERING CHANGE.

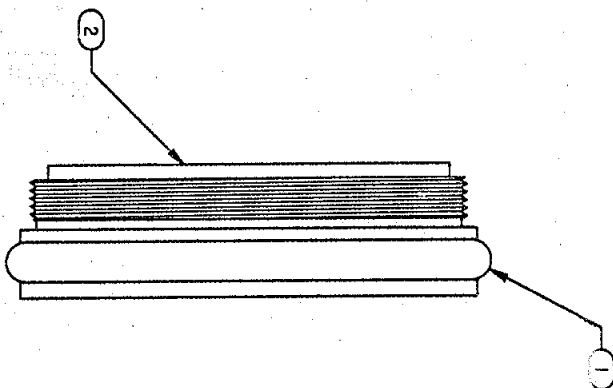
6. CHAMFER FIRST AND LAST THREADS 45° TO MINOR DIAMETER.



| SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH DOD-SIC-2100 | |
|--|-------|
| CLASSIFICATION | TOTAL |
| CRITICAL (C) | NONE |
| MAJOR (M) | 7 |
| MINOR (200 SERIES) | NONE |
| UNLESS OTHERWISE SPECIFIED, AS A MINIMUM REQUIREMENT, CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH DOD-SIC-2100. | |

| | | | |
|--|--|--|--|
| DOCS/MENTATOR | 6503332 | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES HOLE ± .5" PRACTICES ± .010 ORIGINAL ± .010 PART SHALL BE FREE OF BURRS ROUNDED EDGES .010 FILLETS _____ SURFACE FINISHES _____ 63/ | DATE APPROVED FOR FLIGHT/LIMITED PROO |
| INSTRUCT DRAWING IN ACCORDANCE WITH | DATE APPROVED FOR FLIGHT/LIMITED PROO | DATE APPROVED FOR FLIGHT/LIMITED PROO | DATE APPROVED FOR FLIGHT/LIMITED PROO |

1. VIBRATION ISOLATOR RING (ITEM 1) SHALL BE INSTALLED ON VIBRATION ISOLATOR FRAME (ITEM 2) IN SPACE PROVIDED AS SHOWN.
2. MARKING SHALL BE IN ACCORDANCE WITH MIL-STD-130. METHOD OPTIONAL.



SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH DOD-STD-2101.

| CLASSIFICATION | TOTAL |
|--------------------|-------|
| CRITICAL (C) | NONE |
| MAJOR (M) | NONE |
| MINOR (200 SERIES) | NONE |

UNLESS OTHERWISE SPECIFIED, AS A MINIMUM REQUIREMENT, CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH DOD-STD-2101.

| | | |
|----------|----------|-----------|
| 2 | 1 | 6 |
| 1 | 1 | 6 |
| ITEM NO. | QTY REQD | CLAS CODE |

DATE: 10-10-79

BY: [Signature]

APPROVED FOR PROTOTYPE PROO

DATE: 10-10-79



6503332

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
FRACTIONS < .005
DECIMALS < .005
HOLE SHALL BE FREE OF BURRS
BRIDGES FORMS .010 MAX
FILLET .010 R MAX
SURFACE FINISHES
DO NOT SCALE THIS DRAWING
INTERPRET DRAWING
IN ACCORDANCE WITH
DOD-STD-2101, AND Y14.2M-1982

Control No. M0310-BB-C-032

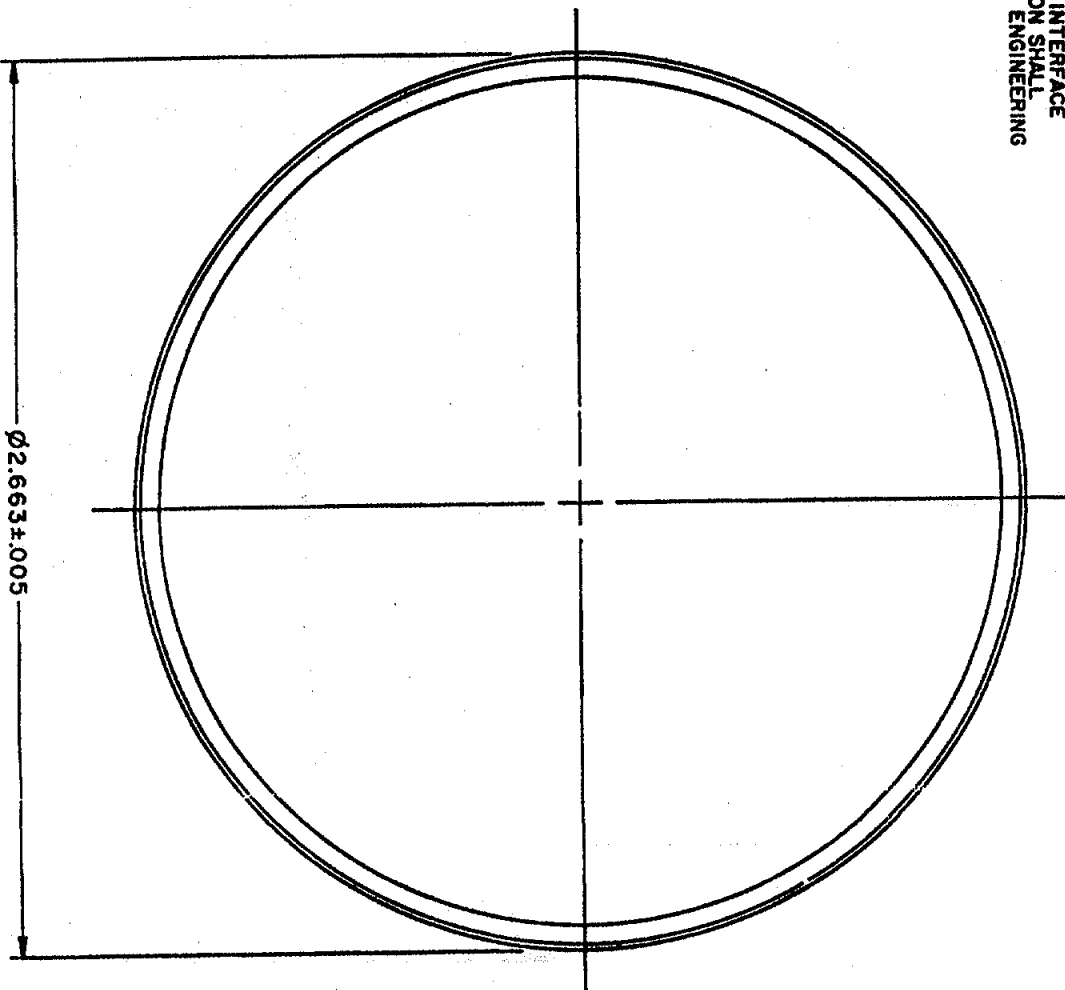
NET LIST

DATE: 10-10-79

DATE: 10-10-79

1. MATERIAL: PROPELLE MOLDING MATERIAL, N ACCORDANCE WITH ASTM D4101, PP110 OR PP210 WITH 15% \pm 2% GLASS FIBER BY WEIGHT AND 20% \pm 3% CARBON BLACK BY WEIGHT, N ACCORDANCE WITH ASTM D1765, GRADE N-672. VOLUME RESISTANT SHALL BE 1000 ohm-cm MAXIMUM WHEN MEASURED N ACCORDANCE WITH ASTM D257.

2. SURFACE FINISH SHALL BE MATTED NON-SPECULAR, OF SURFACE ROUGHNESS NOT GREATER THAN 80 MICRONS RMS, EXCEPT THAT IN FOUR AREAS NOT LARGER THAN 300 DIAMETER, ROUGHNESS MAY BE 250 MICRONS RMS. LOCATION OF THESE FOUR AREAS, INTENDED TO ALLOW FOR SPRUE GATES AND EJECTOR PINS, SHALL BE OPTIONAL.
3. **D** INDICATES DATA CONTROLLED BY INTERFACE CONTROL DIMENSION, SIZE AND LOCATION SHALL NOT BE MODIFIED EXCEPT BY CLASS I ENGINEERING CHANGE.



SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH EOD-STD 2101.

| CLASSIFICATION | TOTAL |
|--------------------|-------|
| CRITICAL (C) | NONE |
| MAJOR (M) | 1 |
| MINOR (200 SERIES) | NONE |

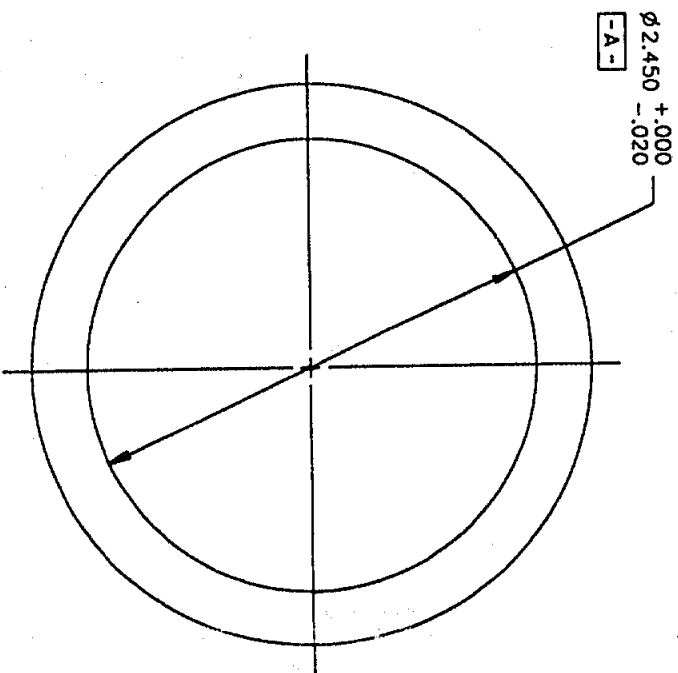
UNLESS OTHERWISE SPECIFIED AS A MINIMUM REQUIREMENT, CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH
 800 STD 2181.

[illegible]

| | | |
|--|--|------|
| MAIL ADDRESS: GPO PRINTING OFFICE WASHINGTON, D. C. 20540-4000 | PREPARED FOR: EMB/ACT | DATE |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: | AS FOLLOWS: | DATE |
| FINISHES: | FINISHES: | DATE |
| PAINT SHALL BE FREE OF STAINS AND DISCOLORATIONS | PAINT SHALL BE FREE OF STAINS AND DISCOLORATIONS | DATE |
| FILLING: | FILLING: | DATE |
| SURFACE FINISHES: | SURFACE FINISHES: | DATE |
| DO NOT SCALE THIS DRAWING | DO NOT SCALE THIS DRAWING | DATE |
| INTERPRETING DRAWING IN ACCORDANCE WITH GDS-917-90, AMES T14-20-9002 | INTERPRETING DRAWING IN ACCORDANCE WITH GDS-917-90, AMES T14-20-9002 | DATE |
| TAILOR CORPORATION 10000 100TH AVE NORTH BAY | TAILOR CORPORATION 10000 100TH AVE NORTH BAY | DATE |

2. MEASUREMENT OF .300 +.005/-.000 DIMENSION SHALL BE MEASURED WHILE DATUM -A- IS PLACED OVER A 2.450 ±.001 DIAMETER MANDREL.

3. MEASUREMENT OF .300 +.005/-.000 DIMENSION SHALL BE MEASURED WHILE DATUM -A- IS PLACED OVER A 2.450 ±.001 DIAMETER MANDREL.



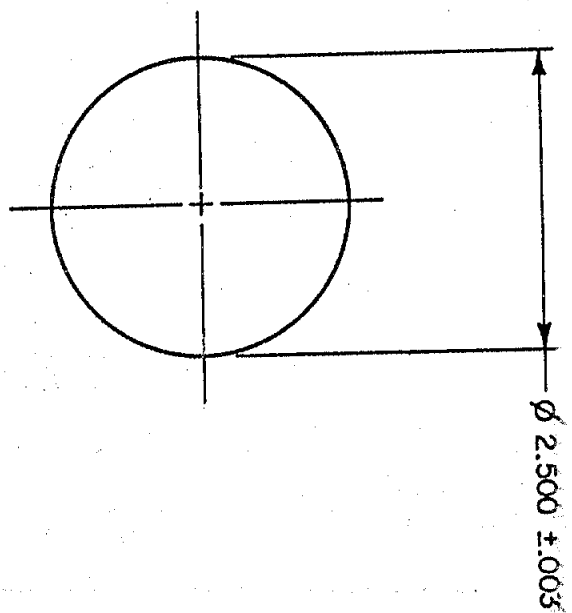
SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH DDD-STD-2101.

| CLASSIFICATION | TOTAL |
|--------------------|-------|
| CRITICAL (C) | NONE |
| MAJOR (M) | NONE |
| MINOR (200 SERIES) | NONE |

UNLESS OTHERWISE SPECIFIED, AS A MINIMUM REQUIREMENT, CHARACTERISTICS SHALL BE VERIFIED IN ACCORDANCE WITH DDD-STD-2101.

| UNLESS OTHERWISE SPECIFIED | |
|------------------------------|--|
| DIMENSIONS ARE IN INCHES | |
| TOLERANCES | |
| FRACTIONS | |
| DECIMALS | |
| PARTS SHALL BE FREE OF BURRS | |
| SHARP EDGES | |
| RADIUS | |
| FILETS | |

1. MATERIAL: COMPOSITION CH-6 (RD) IN ACCORDANCE WITH MIL-C-21723.
2. PELLET MAY BE PRESSED IN ONE OR MORE INCREMENTS. PELLET DENSITY SHALL BE $1.64 \pm .03$ GRAMS PER CUBIC CENTIMETER. THE APPROXIMATE QUANTITY OF COMPOSITION CH-6 WILL BE 110 GRAMS.
3. PELLET SHALL BE FREE OF ALL SURFACE OR INTERNAL CRACKS, VOIDS OR INCLUSIONS AND SURFACE PITS OR CHECKS EXCEPT THAT PELLET CORNERS MAY HAVE PITS, CHECKS OR OTHER IMPERFECTIONS WHICH ARE TOTALLY CONTAINED WITHIN THE TOLERANCE ZONE OF THE $.020 \pm .010$ RADIUS, CONFORMANCE WITH THESE REQUIREMENTS SHALL BE VERIFIED IN ACCORDANCE WITH MIL-STD-453, RADIOGRAPHIC QUALITY LEVEL 2.
4. ∇ INDICATES DATA CONTROLLED BY INTERFACE CONTROL DIMENSION, SIZE AND LOCATION SHALL NOT BE MODIFIED EXCEPT BY CLASS I ENGINEERING CHANGE.



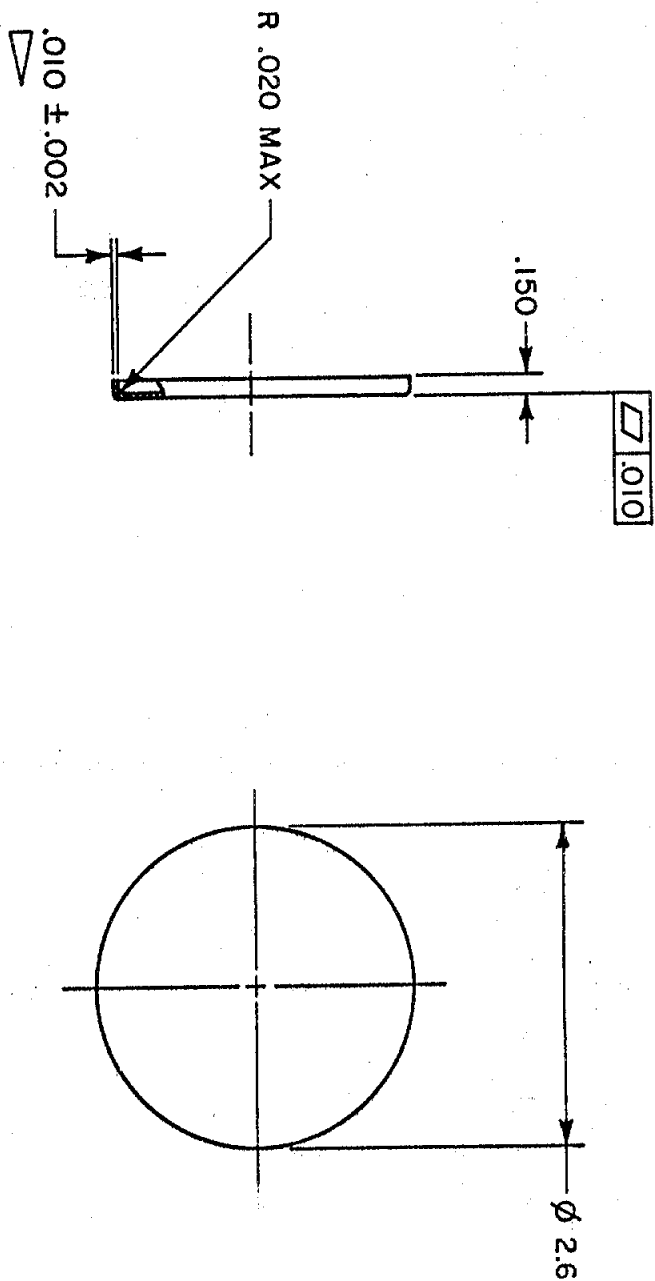
2X R.020

DISTRIBUTION STATEMENT D: DISTRIBUTION AUTHORIZED TO DOD AND DOD CONTRACTORS ONLY: CRITICAL TECHNOLOGY: SEPTEMBER 1988. OTHER REQUESTS SHALL BE REFERRED TO COMNAVSEA-SYSCOM (PMS-422). NO DISTRIBUTION OF THIS REPORT SHALL BE MADE TO DEFENSE TECHNICAL INFORMATION CENTER (DTIC). NO SECONDARY DISTRIBUTION AUTHORIZED WITHOUT PRIOR WRITTEN APPROVAL OF THE COMNAVSEA-SYSCOM (PMS-422).
 WARNING - THIS DOCUMENT CONTAINS TECHNICAL DATA WHOSE EXPORT IS RESTRICTED BY THE ARMS EXPORT CONTROL ACT (TITLE 22, U.S.C. SEC. 2751 ET SEQ) OR EXECUTIVE ORDER 12470. VIOLATIONS OF THESE EXPORT LAWS ARE SUBJECT TO SEVERE CRIMINAL PENALTIES. DESTRUCTION NOTICE - DESTROY BY ANY METHOD THAT WILL PREVENT DISCLOSURE OF CONTENTS OR RECONSTRUCTION OF THE DOCUMENT.

SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS
 ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH
 DOD-STD-2101.
 CLASSIFICATION TOTAL
 CRITICAL (C) NONE

| | | | |
|-----------------------------------|------------------|---|--|
| UNLESS OTHERWISE SPECIFIED | | NAVAL AIR WEAPONS STATION CHINA LAKE, CALIF. 93555 | |
| DIMENSIONS ARE IN INCHES | | APPROVED FOR PRODUCTION | |
| TOLERANCES | | DATE | |
| FRACTIONS = $\frac{\quad}{\quad}$ | | BY DIRECTION | |
| DECIMALS = .010 | | APPROVED FOR PROTOTYPE PROD. | |
| PART SHALL BE FREE OF BURRS | | | |
| BROKEN EDGES | | | |
| MAX. | | | |
| PRGM | 44 Brown | 9/5/88 | |
| DSGN | 1-87-794 | | |
| DWG | 51 Rev 8/12/87 | | |
| QA | 42 Rev 9/3/92 | | |
| MATL | 10-15 Rev 9/5/92 | | |
| RELBL | 106 Rev 9/5/92 | | |

1. MATERIAL: ALUMINUM ALLOY, 6061 SHEET IN ACCORDANCE WITH 00-A-250/11, TEMPER F.
2. FINISH: ANODIC COATING IN ACCORDANCE WITH MIL-A-8625, TYPE II, CLASS 2, YELLOW COLOR NO. 13538, 23538 OR 33538 OF FED-STD-595.
3. \triangleright INDICATES DATA CONTROLLED BY INTERFACE CONTROL DIMENSION. SIZE AND LOCATION SHALL NOT BE MODIFIED EXCEPT BY CLASS I ENGINEERING CHANGE.

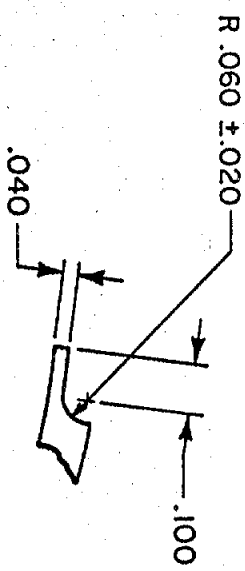


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SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS
 ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH
 DOD-STD-2101.
 CLASSIFICATION TOTAL
 CRITICAL (C) NONE
 MAJOR (H) NONE

| | | | |
|-----------------------------|--|---|--|
| UNLESS OTHERWISE SPECIFIED | | NAVAL AIR WEAPONS STATION CRNA LAB, CAFE, 300B | |
| DIMENSIONS ARE IN INCHES | | APPROVED FOR PRODUCTION | |
| TOLERANCES | | DATE | |
| ANGLES ± 1° | | RELBL | |
| FRACTIONS ± .010 | | MATL | |
| DECIMALS ± .010 | | DWG | |
| PART SHALL BE FREE OF BURRS | | PRGM | |
| BROKEN EDGES .005 | | DSGN | |
| R MAX | | QA | |
| | | RELBL | |
| | | DATE | |
| | | BY DIRECTION | |
| | | APPROVED FOR PROTOTYPE PROD. | |
| | | DATE | |
| | | RELBL | |
| | | MATL | |
| | | DWG | |
| | | PRGM | |

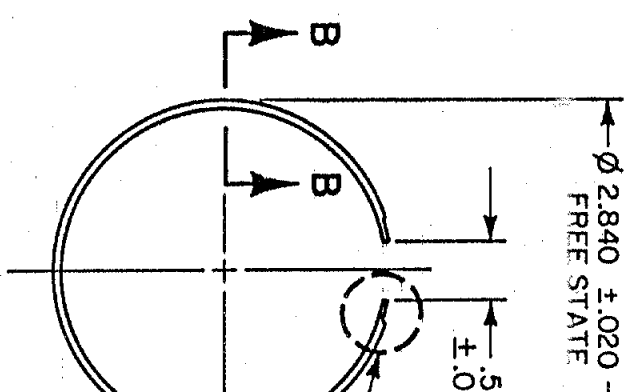
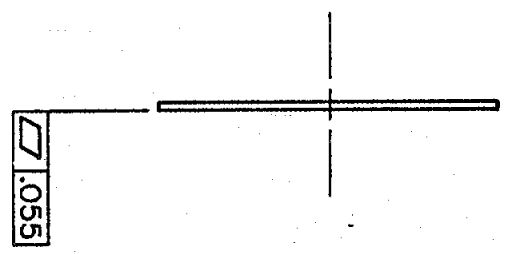
1. ACCORDANCE WITH QQ-S-765, CLASS 301 OR 302, TEMPER 1/2 HARD, FINISH NUMBER 1.
2. ALTERNATE: STEEL FLAT WIRE, CORROSION RESISTING IN ACCORDANCE WITH QQ-S-763, CLASS 302, CONDITION OPTIONAL.
3. FINISH: PASSIVATION IN ACCORDANCE WITH QQ-P-35, TYPE VI OR VII.
4. BLANKED EDGE ACCEPTABLE WITHIN 250/ MAX.
5. AS FINISHED RING SHALL NOT DEVIATE FROM FLAT MORE THAN .020 IN ANY 1.00 LENGTH.



VIEW A
SCALE: 4/1
2 PLACES

DISTRIBUTION STATEMENT D: DISTRIBUTION AUTHORIZED TO DOD AND DOD CONTRACTORS ONLY: CRITICAL TECHNOLOGY: SEPTEMBER 1988. OTHER REQUESTS SHALL BE REFERRED TO COMNAVSEA-SYSCOM (PMS-422). NO DISTRIBUTION OF THIS REPORT SHALL BE MADE TO DEFENSE TECHNICAL INFORMATION CENTER (DTIC). NO SECONDARY DISTRIBUTION AUTHORIZED WITHOUT PRIOR WRITTEN APPROVAL OF THE COMNAVSEA-SYSCOM (PMS-422).

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.042 ± .001

SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS
ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH
DOD-STD-2101.

| CLASSIFICATION | TOTAL |
|--------------------|-------|
| CRITICAL (C) | NONE |
| MAJOR (M) | NONE |
| MINOR (200 SERIES) | NONE |

| UNLESS OTHERWISE SPECIFIED | | MATERIAL SPECIFICATIONS | | DATE | |
|------------------------------|--|-------------------------|--|------|--|
| DIMENSIONS ARE IN INCHES | | MATERIAL SPECIFICATIONS | | DATE | |
| TOLERANCES | | MATERIAL SPECIFICATIONS | | DATE | |
| ANGLES ± 1° | | MATERIAL SPECIFICATIONS | | DATE | |
| FRACTIONS ± .010 | | MATERIAL SPECIFICATIONS | | DATE | |
| PART SHALL BE FREE OF BURRS | | MATERIAL SPECIFICATIONS | | DATE | |
| BROKEN EDGES .010 | | MATERIAL SPECIFICATIONS | | DATE | |
| FILLET .010 | | MATERIAL SPECIFICATIONS | | DATE | |
| R MAX | | MATERIAL SPECIFICATIONS | | DATE | |
| 63 | | MATERIAL SPECIFICATIONS | | DATE | |
| APPROVED FOR PROTOTYPE PROD. | | MATERIAL SPECIFICATIONS | | DATE | |
| BY DIRECTION | | MATERIAL SPECIFICATIONS | | DATE | |
| APPROVED FOR PROTOTYPE PROD. | | MATERIAL SPECIFICATIONS | | DATE | |
| PRGM | | MATERIAL SPECIFICATIONS | | DATE | |
| DSGN | | MATERIAL SPECIFICATIONS | | DATE | |
| DWG | | MATERIAL SPECIFICATIONS | | DATE | |
| QA | | MATERIAL SPECIFICATIONS | | DATE | |
| MTRL | | MATERIAL SPECIFICATIONS | | DATE | |
| RELBL | | MATERIAL SPECIFICATIONS | | DATE | |

APPLICATION(S) SPECIFIED HEREON. A SUBSTITUTE ITEM SHALL NOT BE USED WITHOUT PRIOR APPROVAL BY THE NAVAL AIR WARFARE CENTER, WEAPONS DIVISION, CHINA LAKE, CA OR BY THE NAVAL SEA SYSTEMS COMMAND, WASHINGTON, D.C. 20360.

2. MATERIAL: TWO-PART SILICONE ELASTOMER WITH A PHYSICAL FORM OF FLEXIBLE RUBBER AS CURED. ELASTOMER SHALL BE IN ACCORDANCE WITH MIL-S-23586, TYPE I, CLASS 2, GRADE B-2, EXCEPT AS OTHERWISE SPECIFIED HEREIN.

3. PHYSICAL CHARACTERISTICS (CURED 30 MINUTES AT 70°C (158°F)):

PROPERTY REQUIREMENTS TEST METHOD

A. DUREMETER HARDNESS, 55 MIN ASTM D 2240

B. TENSILE STRENGTH 500 PSI MIN ASTM D 412 METHOD A, DIE C

C. ELONGATION 150% MIN ASTM D 412 METHOD A, DIE C

4. SILICONE ELASTOMER SHALL BE CURED WITHOUT EXOTHERM OR CORROSIVE BY-PRODUCTS.

5. CONFORMANCE TO THE REQUIREMENTS OF THIS DRAWING SHALL BE DETERMINED IN ACCORDANCE WITH THE PROCEDURES OF MIL-STD-105, SAMPLING PROCEDURES AND TABLES FOR INSPECTION BY ATTRIBUTES. CRITERIA FOR SAMPLING AND ACCEPTANCE SHALL BE INSPECTION LEVEL II FOR ALL ATTRIBUTES LISTED ON THIS DRAWING.

6. SHELF LIFE RESTRICTIONS, IF ANY, SHALL BE FURNISHED BY THE MANUFACTURER WITH EACH LOT SUPPLIED. THE DATE OF MANUFACTURE SHALL BE MARKED ON EACH CONTAINER.

7. CONTAINER SIZE AND CONFIGURATION SHALL BE AT THE MANUFACTURER'S OPTION.

8. IDENTIFICATION OF THE APPROVED SOURCE(S) HEREON IS NOT TO BE CONSTRUED AS A GUARANTEE OF PRESENT OR CONTINUED AVAILABILITY AS A SOURCE OF SUPPLY FOR THE ITEM DESCRIBED ON THE DRAWING.

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| APPROVED SOURCE(S) OF SUPPLY | |
|------------------------------|-----------------|
| VENDOR | VENDOR ITEM NO. |
| DOW CORNING CORP. | SYLGARD |
| ELASTOMERS DIV. | 170 A & B |
| MIDLAND, MI 48640 | |
| CAGE CODE: 71984 | |

SUMMARY OF ANNOTATED CLASSIFICATION OF CHARACTERISTICS
ON THIS DRAWING CLASSIFIED IN ACCORDANCE WITH
DOD-STD-2101.

CLASSIFICATION TOTAL
CRITICAL (C) NONE
MAJOR (M) NONE

| | | | |
|-----------------------------|--|---|--|
| UNLESS OTHERWISE SPECIFIED | | NAVAL AIR WEAPONS STATION CHINA LAKE, CALIF. 93554 | |
| DIMENSIONS ARE IN INCHES | | APPROVED FOR ENGAGE | |
| TOLERANCES | | DATE | |
| ANGLES ± | | PRGM | |
| FRACTIONS ± | | DSGN | |
| DECIMALS ± | | DWG | |
| PART SHALL BE FREE OF BURRS | | QA | |
| BROKEN EDGES | | MATT | |
| FILLETS | | RELBL | |
| MAX. | | 10/6/92 | |
| MAX. | | 9/3/92 | |

| LIST | | NAVAL SEA SYSTEMS COMMAND WASHINGTON, DC 20362 | | | 53711 | | DL 6503338 | | REV | | |
|---|-----------|---|--------------------|-----------|--|--|------------|--|-----|--------------------|--|
| LIST TITLE | | | | | | | | NAVAL PHST CENTER - CODE 502 NAVAL WEAPONS STATION EARLE 201 STATE HIGHWAY 34 SOUTH COLTS NECK, NJ 07722-5023 | | SH 2 OF 2 SH | |
| CONTAINER MK 786 MOD 0 | | | | | | | | | | | |
| COMPUTER GENERATED DL CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY DOCUMENTS NOT FURNISHED MUST BE ORDERED ** SEE CONFIGURATION STATUS ACCOUNTING LOGS FOR LATEST REVISION | CAGE CODE | DWG SIZE | DOCUMENT NUMBER | SH NO. | REV | DOCUMENT NOMENCLATURE | SYM | LINE | | | |
| | | | DRAWINGS | | | | | | | | |
| | | D | 6503338 | 1 | D | CONTAINER MK 786 MOD 0 | | 1 | | | |
| | | D | 6503338 | 2 | D | CONTAINER MK 786 MOD 0 | | 2 | | | |
| | | D | 6503341 | 1 | C | HOLDER | | 3 | | | |
| | | C | 6503342 | 1 | B | BAG, BARRIER | | 4 | | | |
| | | C | 6503343 | 1 | A | SHIELD, BOOSTER, ELECTROSTATIC | | 5 | | | |
| | | C | 6503348 | 1 | A | DUNNAGE | | 6 | | | |
| | | C | 6503349 | 1 | A | FILLER | | 7 | | | |
| | | C | 6503351 | 1 | A | DUNNAGE | | 8 | | | |
| | | C | 6213952 | 1 | - | NAMEPLATE | | 9 | | | |
| | | | | | | | | 10 | | | |
| | 10001 | B | LD 256003 | | | AMMUNITION COMPONENT BOX, MK 2 MOD 0 | | 11 | | | |
| | | | | | | | | 12 | | | |
| | | | | | | | | 13 | | | |
| | | | | | | STANDARD DOCUMENT ORDER DESK, BLDG 4D | | 14 | | | |
| | | | | | | 700 ROBBINS AVENUE, PHILADELPHIA, PA 19111-5094 | * | 15 | | | |
| | | | | | | | | 16 | | | |
| | | | MIL-B-117 | | | BAGS, SLEEVES AND TUBING | | 17 | | | |
| | | | MIL-B-131 | | | BARRIER MATERIALS, WATER VAPOR PROOF, GREASE PROOF, FLEXIBLE, HEAT-SEALABLE | | 18 | | | |
| | | | A-A-208 | | | INK, MARKING, STENCIL | | 19 | | | |
| | | | MIL-STD-100 | | | ENGINEERING DRAWING PRACTICES | | 20 | | | |
| | | | MIL-P-82646 | | | PLASTIC FILM, CONDUCTIVE, HEAT-TREATABLE | | 21 | | | |
| | | | MIL-P-15024 | | | PLATES, TAGS AND BANDS FOR ID OF EQUIPMENT | | 22 | | | |
| | | | MIL-P-15024/10 | | | NAMEPLATES, ORDAIT PLATES AND INFORMATION PLATES | | 23 | | | |
| | | | DOD-STD-2101 | | | CLASSIFICATION OF CHARACTERISTICS | | 24 | | | |
| | | | FED-STD-101 | | | FEDERAL TEST METHOD | | 25 | | | |
| | | | MIL-P-19834 | | | PLATES, IDENTIFICATION OR INSTRUCTION | | 26 | | | |
| | | | | | | METAL FOIL | | 27 | | | |
| | | | MMM-A-121 | | | ADHESIVE BONDING | | 28 | | | |
| | | | | | | | | 29 | | | |
| | | | | | | | | 30 | | | |
| | | | | | | | | 31 | | | |
| | | | | | | | | 32 | | | |
| | | | | | | AMERICAN SOCIETY FOR TESTING AND MATERIALS | * | 33 | | | |
| | | | | | | 100 BARR HARBOR DRIVE, WEST CONSHOHOCKEN, PA 19428-2959 | | 34 | | | |
| | | | | | | | | 35 | | | |
| | | | ASTM D4727/D4727M | | | CORRUGATED AND SOLID FIBERBOARD SHEET | | 36 | | | |
| | | | | | STOCK (CONTAINER GRADE) AND CUT SHAPES | | 37 | | | | |
| | | | | | | | 38 | | | | |

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DISTRIBUTION IS UNLIMITED.

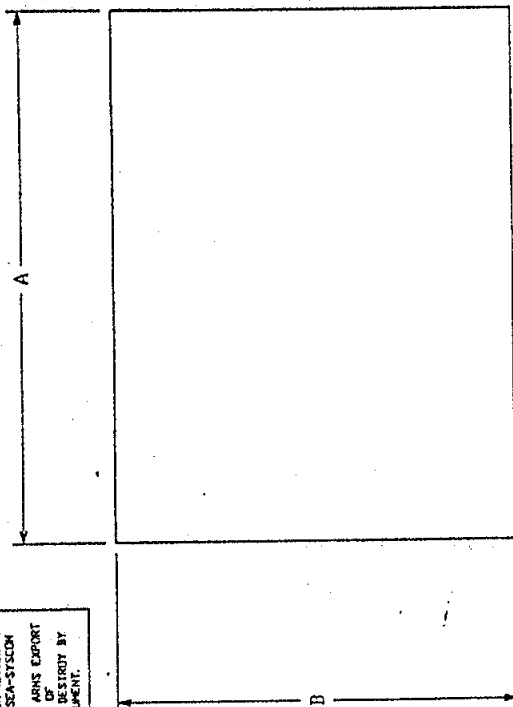
[illegible]

MATERIAL: FIBERBOARD, CORRUGATED IN ACCORDANCE WITH ASTM D4727/4727M, CLASS-WEATHER RESISTANT, VARIETY SW, GRADE W6C.

2. VARIATION IN PLY AND THICKNESS WILL BE PERMITTED AS LONG AS WET STRENGTH AND PUNCTURE RESISTANCE IS NOT DEGRADED.

CAD MAINTAINED. CHANGES SHALL
BE INCORPORATED BY THE DESIGN
ACTIVITY.

| TABULATION | | |
|------------|-------------|------------|
| DASH | LENGTH A | WIDTH B |
| 1 | 12.625 | 9.500 |
| 2 | 12.750 | 12.250 |
| 3 | 12.250 | 11.000 |
| 4 | 13.375 | 10.875 |

[illegible]

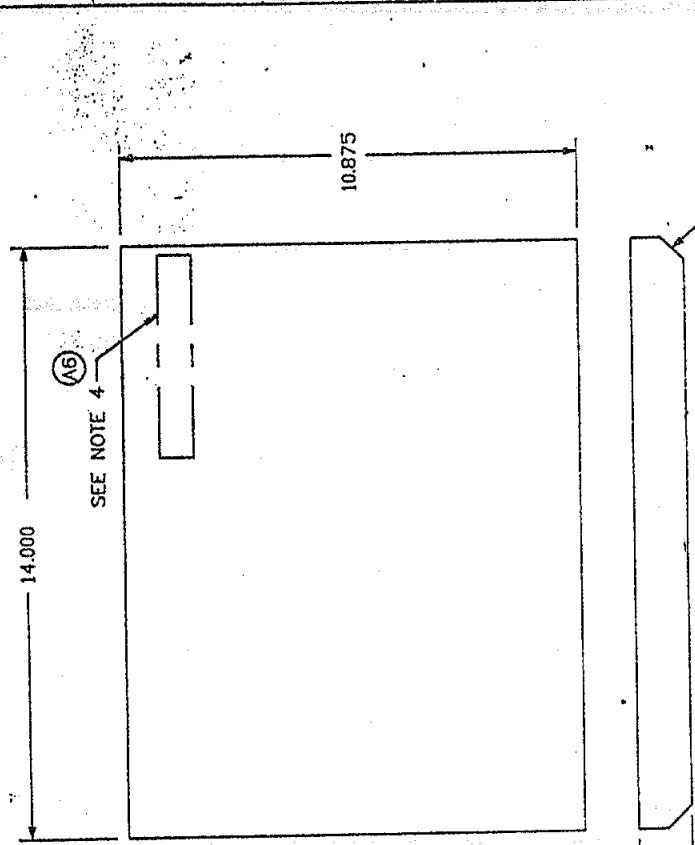
125 ±.030

[illegible]

| APPROVED SOURCES OF SUPPLY | | | |
|----------------------------|-----------------|---|-------------|
| SUPPLIER DATA | | NAME AND ADDRESS | |
| CONTROL NUMBER | ITEM OR FIND NO | CASE CODE | PART NUMBER |
| 6503348 | 1 | 96717 | 69628 |
| | | THE DOW CHEMICAL CO. GOVERNMENT MARKETING 2020 DOW CENTER MIDLAND, MI 48674-2020 | |

| DATE | LTR | DESCRIPTION | DATE | APPROVED |
|------|-----|--------------------------------|---------|----------|
| | A | (1-6) SEE NWS EARLE ECP 197085 | 19/3/77 | RS |

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.



- NOTES:**
- (H10) 1. POLYETHYLENE FOAM MATERIAL UTILIZED FOR FABRICATION SHALL BE PROVIDED WITH INTERNAL ANTI-STATIC ADDITIVE HOMOGENIZED DURING MANUFACTURING PROCESS. THE ANTI-STATIC PROPERTIES SHALL BE AS FOLLOWS:
- A. AVERAGE ELECTROSTATIC DECAY TIME SHALL BE NO GREATER THAN 2.0 SECONDS WHEN TESTED IN ACCORDANCE WITH ELECTRONIC INDUSTRIES ASSOCIATION STANDARD 541, APPENDIX F.
 - B. THE SURFACE RESISTIVITY EXPRESSED TO 3 SIGNIFICANT FIGURES, SHALL NOT BE LESS THAN 100 X 10⁵ OHMS PER SQUARE AND NOT MORE THAN 100 X 10¹² OHMS PER SQUARE WHEN TESTED IN ACCORDANCE WITH ELECTRONIC INDUSTRIES ASSOCIATION STANDARD 541, SECTION 4.3.
- (H102) 2. FOAM MUST NOT CONTAIN RESIDUAL EXPLOSIVE BLOWING AGENTS ABOVE 10% OF THE LOWER EXPLOSIVE LIMIT BY VOLUME. FOAM PUNCTURED TO RELEASE BLOWING AGENTS MAY NOT ABSORB MORE THAN 0.30 LBS OF WATER PER SQUARE FOOT OF CUT SURFACE.
3. CUSHION, MAY BE LAMINATED SECTIONS BONDED TOGETHER USING ADHESIVE, HMM-A-121, OR BY HEAT FUSION PER SUITABLE COMMERCIALLY ACCEPTED PRACTICE. ALL BONDED REGIONS SHALL SHOW NO EVIDENCE OF DELAMINATION.
4. STENCIL IN .12 INCH CHARACTERS "53711-6503348" USING STENCIL INK, A-A-208, TYPE II OR III, IN A CONTRASTING COLOR IN APPROXIMATE LOCATION SHOWN.
5. ONLY THE ITEMS DESCRIBED ON THIS DRAWING ARE APPROVED FOR USE IN THE APPLICATIONS SPECIFIED HEREON. A SUBSTITUTE ITEM SHALL NOT BE USED WITHOUT PRIOR APPROVAL BY NAVAL PHST CENTER (CODE EN40), NAVAL WARFARE ASSESSMENT DIVISION, DETACHMENT EARLE, 201 STATE HIGHWAY 34 SOUTH, CULTS NECK, NJ 07722-5023.
6. IDENTIFICATION OF THE APPROVED ITEMS HEREON IS NOT TO BE CONSTRUED AS A GUARANTEE OF PRESENT OR CONTINUED AVAILABILITY.

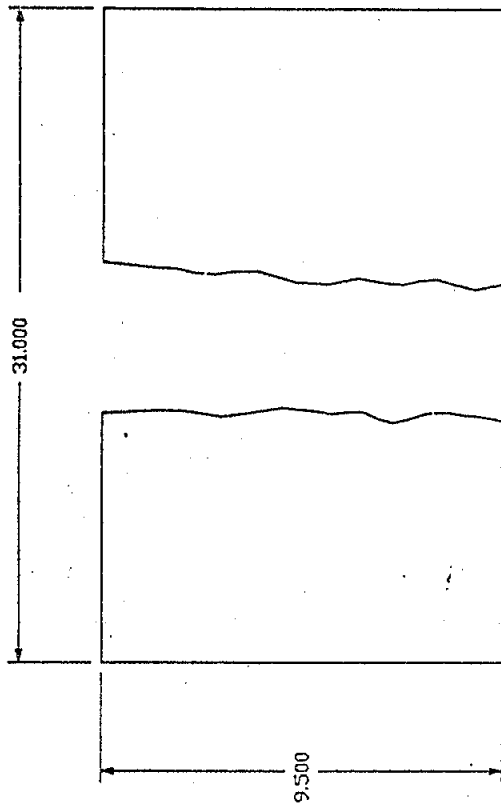
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(A1) SOURCE CONTROL DRAWING

| | | | | | | | | | | | | | |
|---------------------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|----------------|--|
| CLASSIFICATION OF CHANGES | | DOW-510-2101 | | CRITICAL | | NONE | | MAJOR | | MINOR | | NONE ANNOTATED | |
| DATE | | 19/3/77 | | 19/3/77 | | 19/3/77 | | 19/3/77 | | 19/3/77 | | 19/3/77 | |
| BY | | S/J. L. BARRY | | S/J. L. BARRY | | S/J. L. BARRY | | S/J. L. BARRY | | S/J. L. BARRY | | S/J. L. BARRY | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
| DATE | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | | 9/2/92 | |
| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |
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| BY | | S/SG | | S/TH | | S/SH | | S/CR | | S/L | | S/B | |

1. MATERIAL: PLASTIC FILM, CONDUCTIVE, FLEXIBLE IN ACCORDANCE WITH MIL-P-82646, .004 \pm .001 THICK.

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

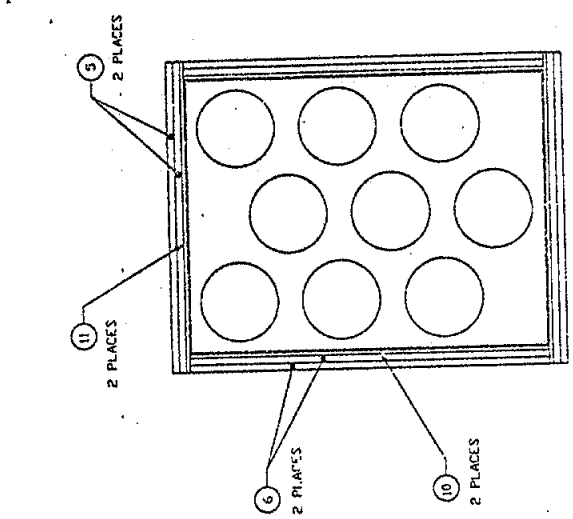


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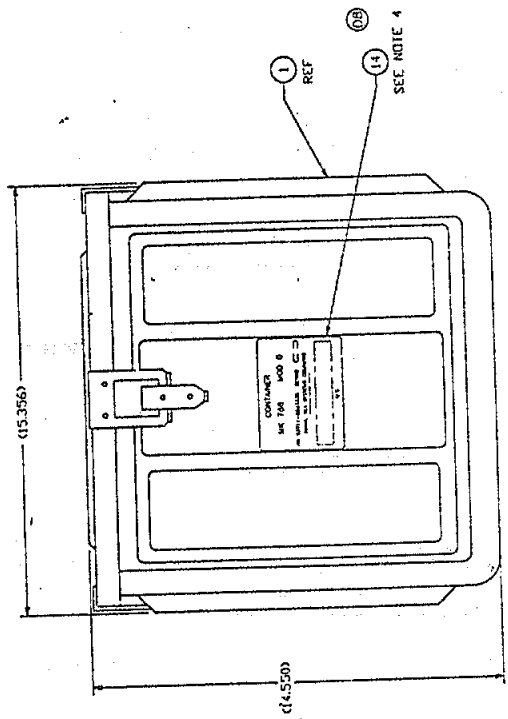
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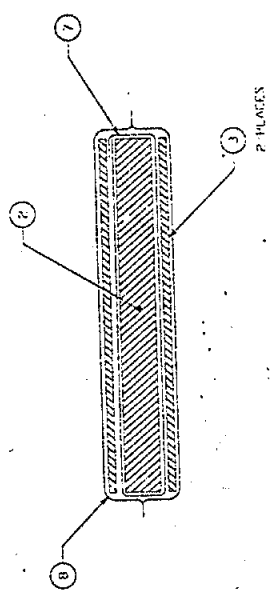
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SECTION C-C
ITEM 1 LIMITED FOR CLARITY
SEE SHEET 1



VIEW A-A
SEE SHEET 1



VIEW B
SEAL: NONE
4 PLACES
SEE SHEET 1

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| PROJECT NO. | 6503338 |
| DESIGN NO. | 53711 |
| DATE | 1/2 |
| BY | AS |
| CHECKED BY | AS |
| APPROVED BY | AS |
| DATE | 1/2 |

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ACTIVITY.



THE UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D. C. 20246

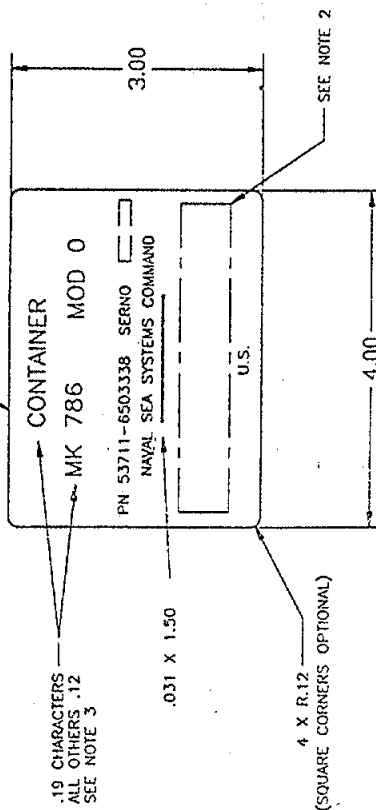
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NOTES:

1. PLATE SHALL BE FABRICATED IN ACCORDANCE WITH MIL-P-15024, TYPE C, 5000 PSI MIL PRESSURE SENSITIVE ADHESIVE BACKED.
2. INFORMATION SHALL BE IN ACCORDANCE WITH MIL-P-15024/10, SECTION 3.6.1 PARAGRAPH (6) THRU (8).
3. ALL CHARACTERS TO BE CENTERED AND VISUALLY BALANCED AS SHOWN.

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

① .003 REF



DWG. NO. 6213952 SH 1 REV

| CLASSIFICATION OF CHARACTERISTICS | |
|-----------------------------------|----------------|
| CRITICAL | NONE |
| MAJOR | NONE |
| MINOR | NONE ANNOTATED |

DISPOSITION STATEMENT A.
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| | |
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| 6503338 | DL6503338 |
| NEXT ASSY | USED ON |
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INTERPRET DRAWING IN ACCORDANCE WITH MIL-SID-100
DO NOT SCALE THIS DRAWING DIMENSIONS ARE IN INCHES
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE:
3 PLACE DECIMALS ± .010 FRACTIONS ARE:
2 PLACE DECIMALS ± .03 ANGLES -
RADIUS DIMENSIONS, BREAK SHARP CORNERS .015 MAX
SURFACE FINISH 125 MAX
MATERIAL SEE PARTS LIST

| ITEM OR FIND NO. | QTY REQ | CAGE CODE | PART OR IDENTIFYING NO. | PLATE | NONCULATURE OR DESCRIPTION | SPECIFICATION | MIL-P-19834 | AL FOIL | MATERIAL OR NOTE |
|------------------|---------|-----------|-------------------------|-------|----------------------------|---------------|-------------|---------|------------------|
| 1 | 1 | | | | | | | | |

| PARTS LIST | |
|---|-----------------|
| DEPARTMENT OF THE NAVY NAVAL SEA SYSTEMS COMMAND WASHINGTON, D.C. 20380 | |
| NAMEPLATE | |
| SHEET CODE C 53711 | DWG NO. 6213952 |
| SCALE 1/1 | SHEET 1 OF 1 |

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| DATA LIST | DEPARTMENT OF THE NAVY NAVAL SEA SYSTEMS COMMAND WASHINGTON, DC 20362 | | CONTRACT NO. | | CAGE CODE 53711 | | DL 6503338 | | REV | |
| | LIST TITLE CONTAINER MK 786 MOD 0 | | | | | | NAVAL PHST CENTER - CODE 502 NAVAL WEAPONS STATION EARLE 201 STATE HIGHWAY 34 SOUTH COLTS NECK, NJ 07722-5023 | | SH 2 OF 2 SH | |

| COMPUTER GENERATED DL CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY ** SEE CONFIGURATION STATUS ACCOUNTING LOGS FOR LATEST REVISION * DOCUMENTS NOT FURNISHED MUST BE ORDERED | CAGE CODE | DWG SIZE | DOCUMENT NUMBER | SH NO. | REV | DOCUMENT NOMENCLATURE | SYM | LINE |
|---|-----------|----------|-------------------|--------|--|---|-----|------|
| | DRAWINGS | | | | | | | |
| | | D | 6503338 | 1 | D | CONTAINER MK 786 MOD 0 | | 1 |
| | | D | 6503338 | 2 | D | CONTAINER MK 786 MOD 0 | | 2 |
| | | D | 6503341 | 1 | C | HOLDER | | 3 |
| | | C | 6503342 | 1 | B | BAG, BARRIER | | 4 |
| | | C | 6503343 | 1 | A | SHIELD, BOOSTER, ELECTROSTATIC | | 5 |
| | | C | 6503348 | 1 | A | DUNNAGE | | 6 |
| | | C | 6503349 | 1 | A | FILLER | | 7 |
| | | C | 6503351 | 1 | A | DUNNAGE | | 8 |
| | | C | 6213952 | 1 | - | NAMEPLATE | | 9 |
| | | | | | | | | 10 |
| | 10001 | B | LD 256003 | | | AMMUNITION COMPONENT BOX, MK 2 MOD 0 | | 11 |
| | | | | | | | | 12 |
| | | | | | | | | 13 |
| | | | | | | STANDARD DOCUMENT ORDER DESK, BLDG 4D | | 14 |
| | | | | | | 700 ROBBINS AVENUE, PHILADELPHIA, PA 19111-5094 | * | 15 |
| | | | | | | | | 16 |
| | | | MIL-B-117 | | | BAGS, SLEEVES AND TUBING | | 17 |
| | | | MIL-B-131 | | | BARRIER MATERIALS, WATER VAPOR PROOF, | | 18 |
| | | | | | | GREASE PROOF, FLEXIBLE, HEAT-SEALABLE | | 19 |
| | | | A-A 208 | | | INK, MARKING, STENCIL | | 20 |
| | | | MIL-STD-100 | | | ENGINEERING DRAWING PRACTICES | | 21 |
| | | | MIL-P-82646 | | | PLASTIC FILM, CONDUCTIVE, HEAT-TREATABLE | | 22 |
| | | | MIL-P-15024 | | | PLATES, TAGS AND BANDS FOR ID OF EQUIPMENT | | 23 |
| | | | MIL-P-15024/10 | | | NAMEPLATES, ORALY PLATES AND INFORMATION | | 24 |
| | | | | | | PLATES | | 25 |
| | | | DOD-STD-2101 | | | CLASSIFICATION OF CHARACTERISTICS | | 26 |
| | | | FED-STD-101 | | | FEDERAL TEST METHOD | | 27 |
| | | | MIL-P-19834 | | | PLATES, IDENTIFICATION OR INSTRUCTION | | 28 |
| | | | | | | METAL FOIL | | 29 |
| | | | MMM-A 121 | | | ADHESIVE, BONDING | | 30 |
| | | | | | | | | 31 |
| | | | | | | | | 32 |
| | | | | | | AMERICAN SOCIETY FOR TESTING AND MATERIALS | | 33 |
| | | | | | | 100 BARR HARBOR DRIVE, WEST CONSHOHOCKEN, PA 19428-2959 | * | 34 |
| | | | | | | | | 35 |
| | | | ASTM D4727/D4727M | | | CORRUGATED AND SOLID FIBERBOARD SHEET | | 36 |
| | | | | | STOCK (CONTAINER GRADE) AND CUT SHAPES | | 37 | |
| | | | | | | | 38 | |

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|-----------|------|---|--------|-----|------------------------------------|
| | | DRAWINGS | | | |
| | D | 6503338 | 1 | D | CONTAINER MK 786 MOD 0 |
| | D | 6503338 | 2 | D | CONTAINER MK 786 MOD 0 |
| | D | 6503341 | 1 | C | HOLDER |
| | C | 6503342 | 1 | B | BAG, BARRIER |
| | C | 6503343 | 1 | A | SHIELD, BOOSTER, ELECTROSTATIC |
| | C | 6503348 | 1 | A | DUNNAGE |
| | C | 6503349 | 1 | A | FILLER |
| | C | 6503351 | 1 | A | DUNNAGE |
| | C | 6213952 | 1 | - | NAMEPLATE |
| 10001 | B | LD 256003 | | | AMMUNITION COMPONENT BOX, MK 2 |
| | | STANDARD DOCUMENT ORDER DESK, BLDG 4D | | | |
| | | 700 ROBBINS AVENUE, PHILADELPHIA, PA 19111-5094 | | | |
| | | MIL-B-117 | | | BAGS, SLEEVES AND TUBING |
| | | MIL-B-131 | | | BARRIER MATERIALS, WATER VAPOR |
| | | A-A-208 | | | GREASE PROOF, FLEXIBLE, HEAT-SEAL |
| | | MIL-STD-100 | | | INK, MARKING, STENCIL |
| | | MIL-P-82846 | | | ENGINEERING DRAWING PRACTICES |
| | | MIL-P-15024 | | | PLASTIC FILM, CONDUCTIVE, HEAT-TR |
| | | MIL-P-15024/10 | | | PLATES, TAGS AND BANDS FOR ID OF |
| | | | | | NAMEPLATES, CROSSL PLATES AND IN |
| | | | | | PLATES |
| | | DOD-STD 2101 | | | CLASSIFICATION OF CHARACTERISTIC |
| | | FED-STD 101 | | | FEDERAL TEST METHOD |
| | | MIL-P-19834 | | | PLATES, IDENTIFICATION OR INSTRUCT |
| | | | | | METAL FOIL |
| | | MMM-A-121 | | | ADHESIVE BONDING |
| | | AMERICAN SOCIETY FOR TESTING AND MATERIALS | | | |
| | | 100 BARR HARBOR DRIVE, WEST CONSHOHOCKEN, PA 19428-2959 | | | |
| | | ASTM D4727/D4727M | | | CORRUGATED AND SOLID FIBERBOARD |
| | | | | | STOCK (CONTAINER GRADE) AND CUT S |

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| CONTR | | | | | | | | | | SYSTEMS ENGRG J. E. Powell | | | | | | | | | |
| REV | | | | | | | | | | DRAWING APPROVAL (DESIGN BRANCH) | | | | | | | | | |
| REVISION DESCRIPTION | | | | | | | | | | CHECKER J. E. Powell | | | | | | | | | |
| DATE | | | | | | | | | | APVD | | | | | | | | | |
| REV | | | | | | | | | | REVISION DESCRIPTION | | | | | | | | | |
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RECORD OF REVISION STATUS OF EACH SHEET

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NOTES:

(A5)

CM10D 1. POLYETHYLENE FOAM MATERIAL UTILIZED FOR FABRICATION SHALL BE PROVIDED WITH INTERNAL ANTI-STATIC ADDITIVE HOMOGENIZED DURING MANUFACTURING PROCESS. THE ANTI-STATIC PROPERTIES SHALL BE AS FOLLOWS:

A. AVERAGE ELECTROSTATIC DECAY TIME SHALL BE NO GREATER THAN 2.0 SECONDS WHEN TESTED IN ACCORDANCE WITH ELECTRONIC INDUSTRIES ASSOCIATION STANDARD 541, APPENDIX F.

B. THE SURFACE RESISTIVITY EXPRESSED TO 3 SIGNIFICANT FIGURES, SHALL NOT BE LESS THAN 1.00×10^5 OHMS PER SQUARE AND NOT MORE THAN 1.00×10^{12} OHMS PER SQUARE WHEN TESTED IN ACCORDANCE WITH ELECTRONIC INDUSTRIES ASSOCIATION STANDARD 541, SECTION 4.3.

CM102 2. FOAM MUST NOT CONTAIN RESIDUAL EXPLOSIVE BLOWING AGENTS ABOVE 10% OF THE LOWER EXPLOSIVE LIMIT BY VOLUME. FOAM PUNCTURED TO RELEASE BLOWING AGENTS MAY NOT ABSORB MORE THAN 0.30 LBS OF WATER PER SQUARE FOOT OF CUT SURFACE.

3. CUSHION, MAY BE LAMINATED SECTIONS BONDED TOGETHER USING ADHESIVE, MM-A-121, OR BY HEAT FUSION PER SUITABLE COMMERCIAL PRACTICE. ALL BONDED REGIONS SHALL SHOW NO EVIDENCE OF DELAMINATION.

4. STENCIL IN .12 INCH CHARACTERS '53711-6503351' USING STENCIL INK, A-A-208, TYPE II OR III, IN A CONTRASTING COLOR IN APPROXIMATE LOCATION SHOWN.

5. ONLY THE ITEMS DESCRIBED ON THIS DRAWING ARE APPROVED FOR USE IN THE APPLICATIONS SPECIFIED HEREON. A SUBSTITUTE ITEM SHALL NOT BE USED WITHOUT PRIOR APPROVAL BY NAVAL PHST CENTER (CODE EM40), NAVAL WARFARE ASSESSMENT DIVISION, DETACHMENT EARLE, 201 STATE HIGHWAY 34 SOUTH, COLTS NECK, NJ 07722-5023.

6. IDENTIFICATION OF THE APPROVED ITEMS HEREON IS NOT TO BE CONSTRUED AS A GUARANTEE OF PRESENT OR CONTINUED AVAILABILITY.

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| DASH NO. | LENGTH A | WIDTH B | THICKNESS C |
|----------|-------------|------------|----------------|
| 1 | 12.625 | 9.625 | .250 |
| 2 | 12.625 | 9.625 | 1.250 |
| 3 | 12.250 | 11.000 | .250 |
| 4 | 12.250 | 12.750 | .250 |

(A1) SOURCE C

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CLASSIFICATION OF CHARACTERISTICS

DOD-SIO-2101

CRITICAL NONE

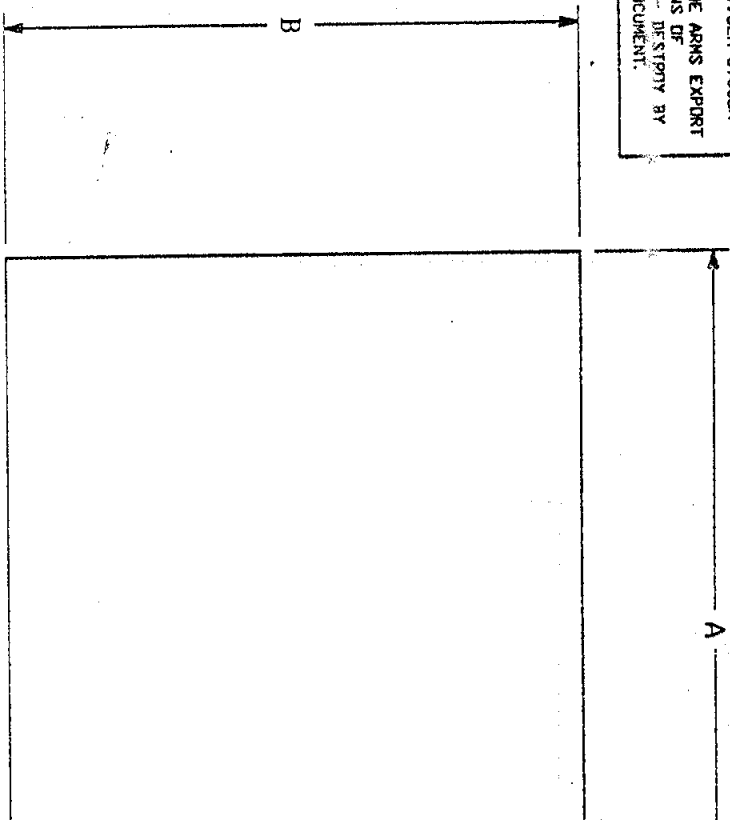
(A3)(A4)

| | | | |
|-------------------------------------|--|---|--|
| UNLESS OTHERWISE SPECIFIED | | NAVAL AIR WEAPONS STATION CHINA LAKE, CALIF. 93535 | |
| DIMENSIONS ARE IN INCHES | | APPROVED FOR ENGR/DEV | |
| TOLERANCES | | DSGN | |
| ANGLES $\pm 30'$ | | DWG | |
| DECIMALS ± 0.062 | | QA | |
| PART SHALL BE FREE OF BURRS | | DATE | |
| BUSHING EDGES _____ R MAX _____ MAX | | APPROVED FOR PROTOTYPE PROD. | |
| FILLETS _____ R MAX _____ MAX | | DATE | |
| SURFACE ROUGHNESS | | RELBL | |
| DO NOT SCALE THIS DRAWING | | BY DIRECTION | |
| | | DATE | |

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| TABULATION | | |
|------------|-------------|------------|
| DASH | LENGTH A | WIDTH B |
| 1 | 12.625 | 9.500 |
| 2 | 12.750 | 12.250 |
| 3 | 12.250 | 11.000 |
| 4 | 13.375 | 10.875 |



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CLASSIFICATION OF CHARACTERISTICS
DOD-SIO-2101

CRITICAL NONE

(A1)

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| UNLESS OTHERWISE SPECIFIED | | NAVAL AIR WEAPONS STATION CHINA LAKE CALIF. 93555 | |
| DIMENSIONS ARE IN INCHES | | APPROVED FOR ENGR/DEV | |
| TOLERANCES | | DATE | |
| ANGLES $\pm 30'$ | | APPROVED FOR PROTOTYPE PROD | |
| FRACTIONS $\pm .062$ | | DATE | |
| DECIMALS $\pm .062$ | | BY DIRECTION | |
| PART SHALL BE FREE OF BURRS | | DATE | |
| BROKEN EDGES | | APPROVED FOR PILOT/LIMITED PROD | |
| FILETS R MAX | | DATE | |
| SURFACE ROUGHNESS | | APPROVED F | |
| DO NOT SCALE THIS DRAWING | | PRGM | |
| | | DSGN | |
| | | Dwg | |
| | | QA | |
| | | MATL | |
| | | REL BL | |

NOTES:

(A5)

1. POLYETHYLENE FOAM MATERIAL UTILIZED FOR FABRICATION SHALL BE PROVIDED WITH INTERNAL ANTI-STATIC ADDITIVE HOMOGENIZED DURING MANUFACTURING PROCESS. THE ANTI-STATIC PROPERTIES SHALL BE AS FOLLOWS:

A. AVERAGE ELECTROSTATIC DECAY TIME SHALL BE NO GREATER THAN 20 SECONDS WHEN TESTED IN ACCORDANCE WITH ELECTRONIC INDUSTRIES ASSOCIATION STANDARD 541, APPENDIX F.

B. THE SURFACE RESISTIVITY EXPRESSED TO 3 SIGNIFICANT FIGURES, SHALL NOT BE LESS THAN 1.00×10^5 OHMS PER SQUARE AND NOT MORE THAN 1.00×10^{12} OHMS PER SQUARE WHEN TESTED IN ACCORDANCE WITH ELECTRONIC INDUSTRIES ASSOCIATION STANDARD 541, SECTION 4.3.

2. FOAM MUST NOT CONTAIN RESIDUAL EXPLOSIVE BLOWING AGENTS ABOVE 10% OF THE LOWER EXPLOSIVE LIMIT BY VOLUME. FOAM PUNCTURED TO RELEASE BLOWING AGENTS MAY NOT ABSORB MORE THAN 0.30 LBS OF WATER PER SQUARE FOOT OF CUT SURFACE.

3. CUSHION, MAY BE LAMINATED SECTIONS BONDED TOGETHER USING ADHESIVE, MM-A-121, OR BY HEAT FUSION PER SUITABLE COMMERCIALLY ACCEPTED PRACTICE. ALL BONDED REGIONS SHALL SHOW NO EVIDENCE OF DELAMINATION.

4. STENCIL IN .12 INCH CHARACTERS '53711-6503348' USING STENCIL INK A-A-208, TYPE II OR III, IN A CONTRASTING COLOR IN APPROXIMATE LOCATION SHOWN.

5. ONLY THE ITEMS DESCRIBED ON THIS DRAWING ARE APPROVED FOR USE IN THE APPLICATIONS SPECIFIED HEREON. A SUBSTITUTE ITEM SHALL NOT BE USED WITHOUT PRIOR APPROVAL BY NAVAL PHST CENTER (CODE EM40), NAVAL WARFARE ASSESSMENT DIVISION, DETACHMENT EARLE, 201 STATE HIGHWAY 34 SOUTH, CULTS NECK, NJ 07722-5023.

6. IDENTIFICATION OF THE APPROVED ITEMS HEREON IS NOT TO BE CONSTRUED AS A GUARANTEE OF PRESENT OR CONTINUED AVAILABILITY.

1.250 ± 0.030

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(A1)

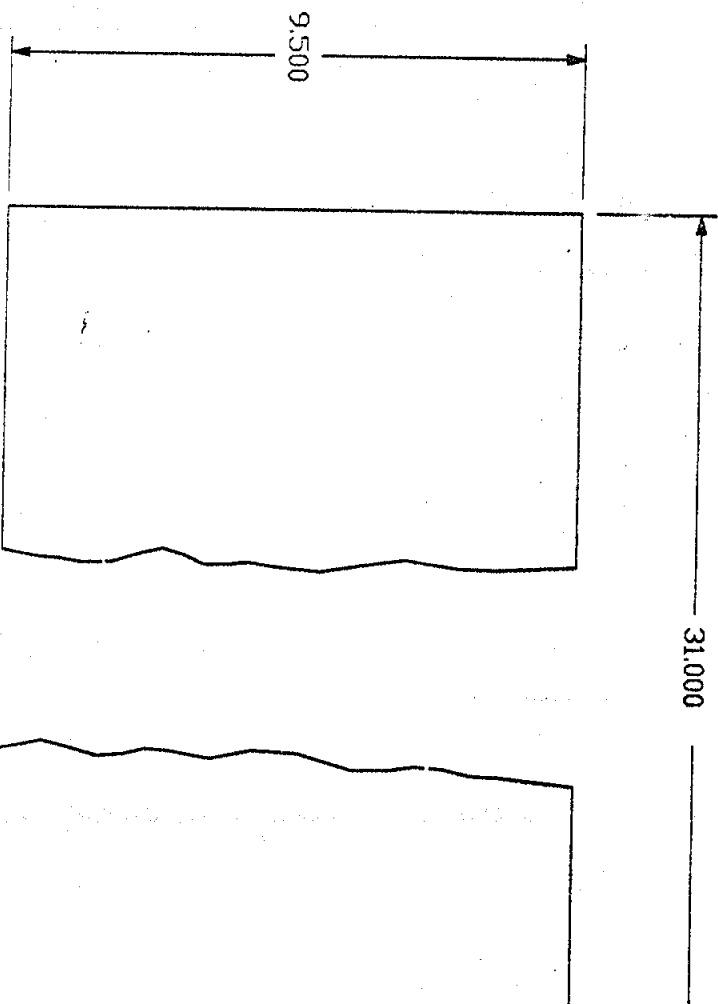
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| CLASSIFICATION OF CHARACTERISTICS | 000-SID-2101 |
| CRITICAL | NONE |
| MAJOR | 2 |

(A3) (A4)

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|-----------------------------|--|---|--|
| UNLESS OTHERWISE SPECIFIED | | NAVAL AIR WEAPONS STATION CHINA LAKE, CALIF. 93555 | |
| DIMENSIONS ARE IN INCHES | | APPROVED FOR ENGR/DEV | |
| TOLERANCES | | DATE | |
| ANGLES ± 5° | | BY DIRECTION | |
| FRACTIONS ± .062 | | APPROVED FOR PROTOTYPING PROD | |
| PART SHALL BE FREE OF BURRS | | DATE | |
| BROKEN EDGES | | REL.BL | |
| FILETIS R MAX | | QA | |
| SURFACE ROUGHNESS | | MATERIAL | |
| DO NOT SCALE THIS DRAWING | | APPROVED FOR PRODUCTION | |
| DATE | | APPROVED | |

A B C D E F G



CLASSIFICATION OF CHARACTERISTICS
DOD-SID-2101

CRITICAL NONE

A1

| | | | |
|-----------------------------|--|---|--|
| UNLESS OTHERWISE SPECIFIED | | NAVAL WEAPONS CENTER CHINA LAKE CALIF. 93535 | |
| DIMENSIONS ARE IN INCHES | | APPROVED FOR ENGR/DEV | |
| TOLERANCES | | DATE | |
| ANGLES ± | | QA | |
| FRACTIONS ± | | DWG | |
| DECIMALS ± .125 | | MATH | |
| PART SHALL BE FREE OF BURRS | | REL BL | |
| BROKEN EDGES | | | |
| FILLETS R MAX. | | | |
| SURFACE ROUGHNESS | | | |

3. THE BAG SHALL MEET THE HEAT SEAL REQUIREMENTS OF MIL-B-117.

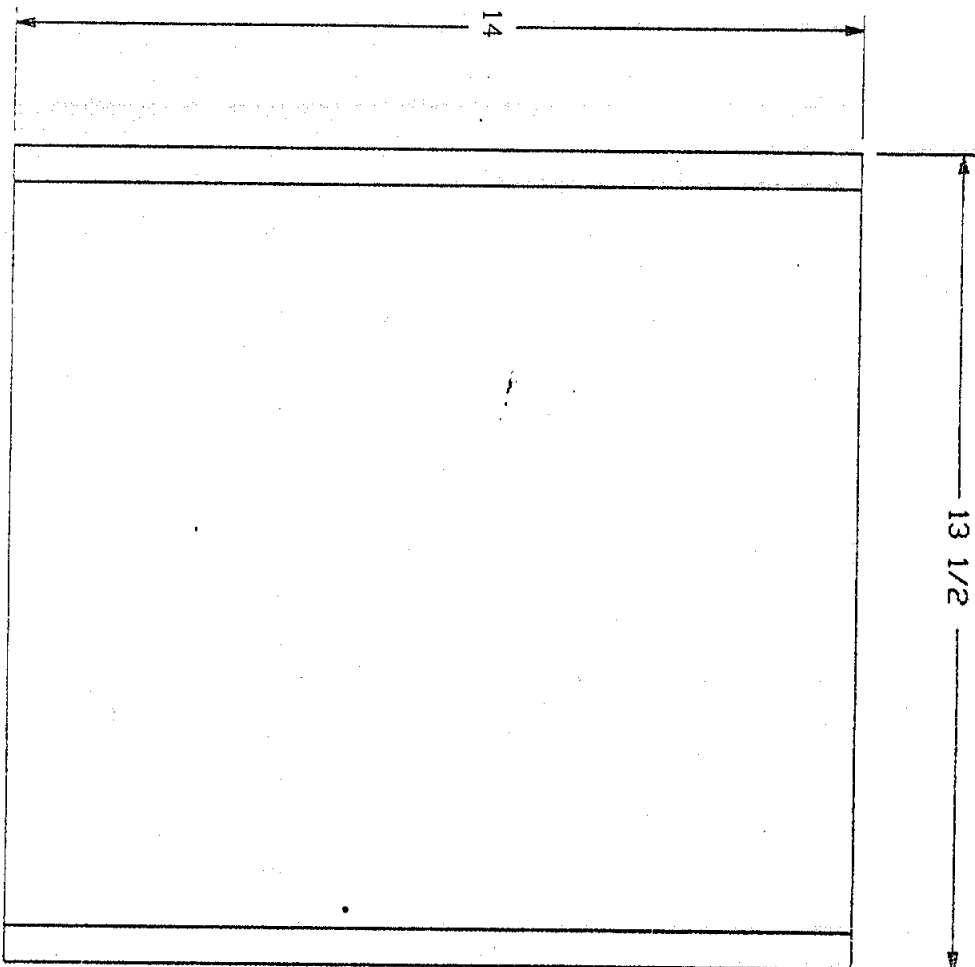
A B C D E F G

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CLASSIFICATION OF CHARACTERISTICS
DDO-SID-2101

CRITICAL NONE

(B1)



TH

| | | | |
|-----------------------------|--|--|--|
| UNLESS OTHERWISE SPECIFIED | | NAVAL WEAPONS CENTER CHINA LAKE, CALIF. 92555 | |
| DIMENSIONS ARE IN INCHES | | APPROVED FOR ENG/DEV | |
| TOLERANCES | | DATE | |
| ANGLES ± | | QA | |
| FRACTION ± 1' | | MATL | |
| DECIMALS ± 0.0 | | REL BL | |
| PART SHALL BE FREE OF BURRS | | | |
| BROKEN EDGES ± | | | |
| FILETS ± R MAX | | | |
| SURFACE ROUGHNESS | | | |

CM101) 1. POLYETHYLENE FOAM MATERIAL UTILIZED FOR FABRICATION SHALL BE PROVIDED WITH INTERNAL ANTI-STATIC ADDITIVE HOMOGENIZED DURING MANUFACTURING PROCESS. THE ANTI-STATIC PROPERTIES SHALL BE AS FOLLOWS:

AS FOLLOWS:

A. AVERAGE ELECTROSTATIC DECAY TIME SHALL BE NO GREATER THAN 2.0 SECONDS WHEN TESTED IN ACCORDANCE WITH ELECTRONIC INDUSTRIES ASSOCIATION STANDARD 541, APPENDIX F.

b. THE SURFACE RESISTIVITY EXPRESSED TO 3 SIGNIFICANT FIGURES, SHALL NOT BE LESS THAN 100×10^6 OHMS PER SQUARE AND NOT MORE THAN 100×10^6 OHMS PER SQUARE WHEN TESTED IN ACCORDANCE WITH ELECTRONIC INDUSTRIES ASSOCIATION STANDARD 541, SECTION 4.3.

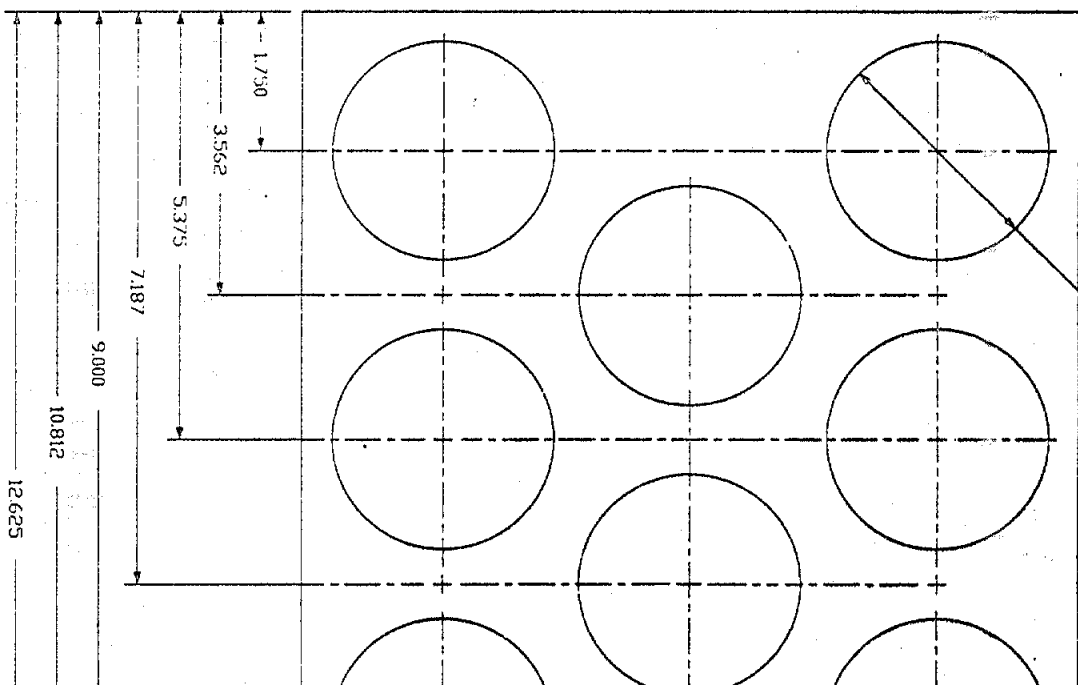
CM02) 2. FOAM MUST NOT CONTAIN RESIDUAL EXPLOSIVE LIMIT BY VOLUME. FOAM PUNCTURED TO RELEASE BLOWING AGENTS MAY NOT ABSORB MORE THAN 0.30 LBS OF WATER PER SQUARE FOOT OF CUT SURFACE.

3. CUSHION, MAY BE LAMINATED SECTIONS BONDED TOGETHER USING ADHESIVE, MMM-A-121, OR BY HEAT FUSION PER SUITABLE COMMERCIALLY ACCEPTED PRACTICE. ALL BONDED REGIONS SHALL SHOW NO EVIDENCE OF DELAMINATION.

4. STENCIL IN .02 INCH CHARACTERS "53711-6503341" USING STENCIL INK, A-A-208, TYPE II OR III, IN A CONTRASTING COLOR IN APPROXIMATE LOCATION SHOWN.

5. ONLY THE ITEMS DESCRIBED ON THIS DRAWING ARE APPROVED FOR USE IN THE APPLICATIONS SPECIFIED HEREIN. A SUBSTITUTE ITEM SHALL NOT BE USED WITHOUT PRIOR APPROVAL BY NAVAL PHSI CENTER (CODE EMAD), NAVAL WARFARE ASSESSMENT DIVISION, DETACHMENT EARLE, 201 STATE HIGHWAY 34 SOUTH, COLTS NECK, NJ 07722-5023.

6. IDENTIFICATION OF THE APPROVED ITEMS HEREON IS NOT TO BE CONSTRUED AS A GUARANTEE OF PRESENT OR CONTINUED AVAILABILITY.



CLASSIFICATION OF CHARACTERISTICS

CRITICAL NONE

WAVOR 2

MINOR NONE ANNOTATED

④

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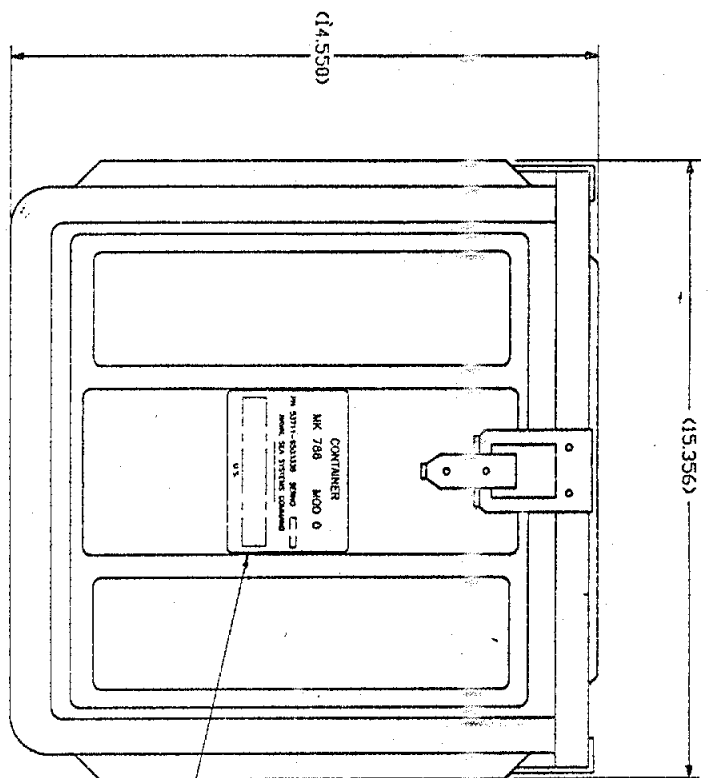
MARCO

J. GRADLEY

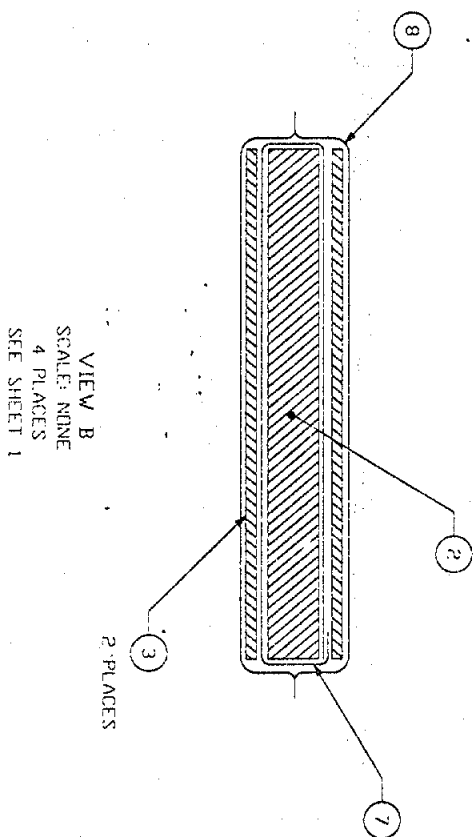
6503338

INTERPRET DRAWINGS
IN ACCORDANCE WITH

DO NOT SCALE THIS DRAWING



VIEW A-A
SEE SHEET 1



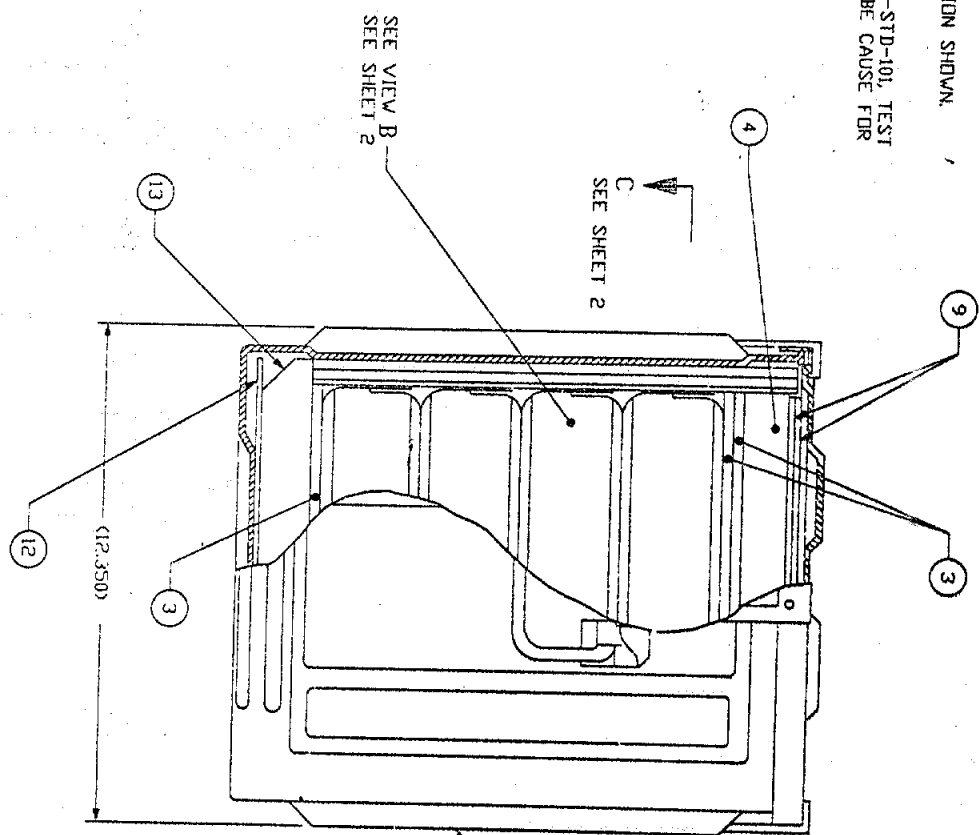
1 REF
14
08
SEE NOTE 4

6
2 PLACES
10
2 PLACES

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1. WRAP HOLDER, ITEM 2, IN SHIELD, ITEM 7, AS SHOWN IN VIEW B. PLACE ONE PIECE OF DUNNAGE, ITEM 3, ABOVE AND BELOW THE SHIELD, ITEM 7, AND PLACE IN BARRIER BAG, ITEM 8. DO NOT SEAL THE OPEN END.
2. INSTALL HOL DER, ITEM 2, DUNNAGE, ITEMS 3, 4, 5, 6 AND 13, SHIELD, ITEM 7, BARRIER BAG, ITEM 8, AND FILLER, ITEMS 9, 10, 11 AND 12, INTO CONTAINER, ITEM 1, AS SHOWN ON THIS DRAWING.
3. PACKING AND MARKING FOR THE INTENDED CONTENTS BY A UTILIZING ACTIVITY ARE GIVEN ON DRAWING 6503337.
4. APPLY NAMEPLATE, ITEM 14, IN THE APPROXIMATE POSITION SHOWN.
5. CONTAINER SHALL BE TESTED IN ACCORDANCE WITH FED-STD-101, TEST METHOD 5009, HOT WATER TECHNIQUE. LEAKAGE SHALL BE CAUSE FOR REJECTION.
6. FOR DATA LIST SEE DL6503338.

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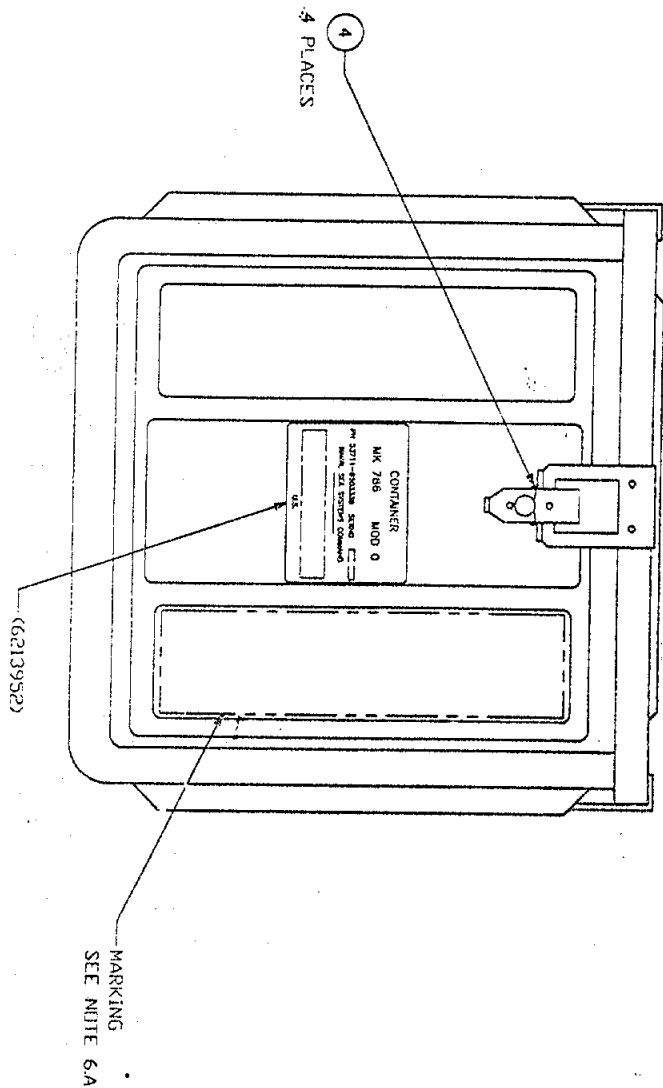
| CLASSIFICATION OF CHARACTERISTICS | |
|-----------------------------------|----------------|
| CRITICAL | NONE |
| MAJOR | NONE |
| MINOR | NONE ANNOTATED |

(107)

| REVISION STATUS OF SHEETS | |
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| A | B |
| B | C |
| C | D |

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| UNLESS OTHERWISE SPECIFIED | INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100 |
| DIMENSIONS ARE IN INCHES | |
| FRACTIONS 1/16 | |
| DECIMALS 1/10 | |
| PART SHALL BE FREE OF BROKEN EDGES | |
| FILLETS R MAX | |
| SURFACE FINISHES | |
| DO NOT SCALE THIS DRAWING | |
| DATE 80-7-26 | |
| BY J BRADLEY | |
| IN CHARGE | |
| REVISION | |
| APPROVED | |

(6503341)



VIEW A-A
SEE SHEET 1
①10

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WATSON 341/52 DEVID/03

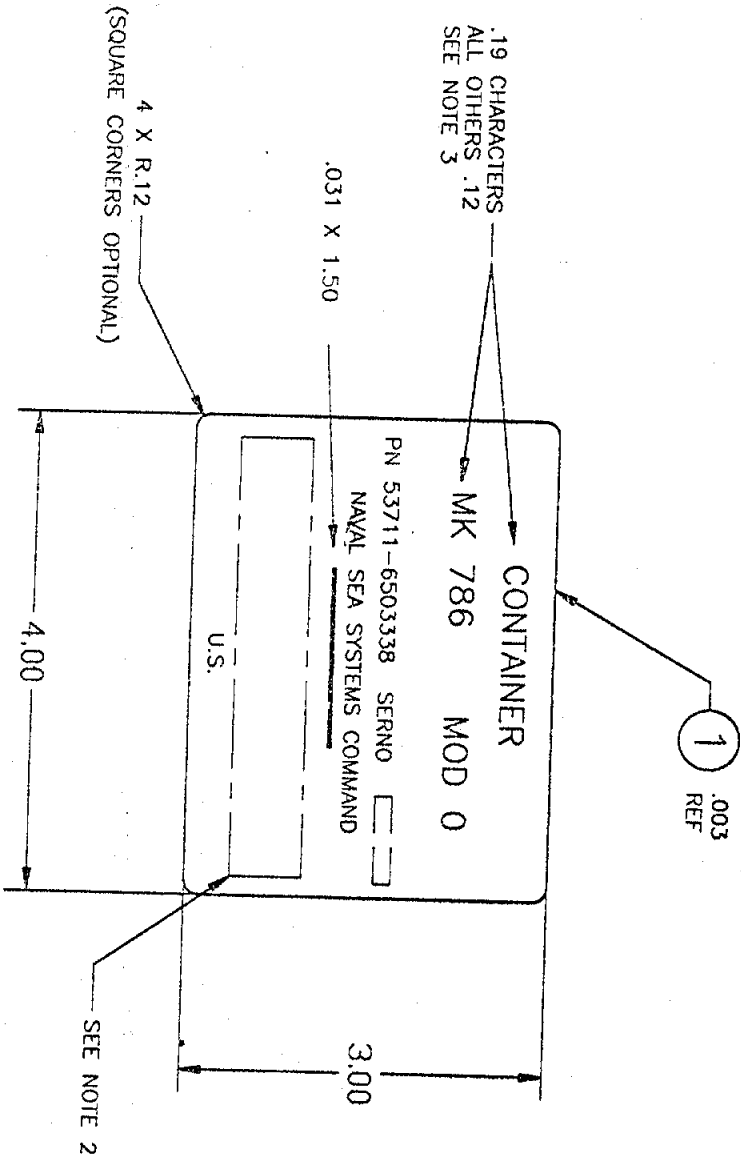
11

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1

— CONCLUSIONS —

2. INFORMATION SHALL BE IN ACCORDANCE WITH MIL-P-15024/10, SECTION 3.6.1 PARAGRAPH (6) THRU (8).
3. ALL CHARACTERS TO BE CENTERED AND VISUALLY BALANCED AS SHOWN.



CLASSIFICATION OF CHARACTERISTICS

DDO-STD-2101

DISTRIBUTION STATEMENT A.

APPROVED FOR PUBLIC RELEASE:
DISTRIBUTION IS UNLIMITED

| ITEM OR FIND NO. | QTY REQ | CAGE CODE | PART OR IDENTIFYIN |
|---------------------|------------|-----------|-----------------------|
| 1 | 1 | | |

INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100
DO NOT SCALE THIS DRAWING. DIMENSIONS ARE IN INCHES

DESIGN APPRO
FOR PROTOTYPE

| DATA LIST | | DEPARTMENT OF THE NAVY NAVAL SEA SYSTEMS COMMAND WASHINGTON, DC 20382 | CONTRACT NO. | CAGE CODE 53711 | DL 6503338 |
|---|----------|---|--------------|--------------------|---|
| CONTAINER MK 786 MOD 0 | | NAVAL PIST CENTER - CODE 682 NAVAL WEAPONS STATION EAST 201 STATE HIGHWAY 34 SOUTH COLLEGE MECK, MD 21722-5023 | | | |
| LIST TITLE | | | | | |
| CONTAINER MK 786 MOD 0 | | | | | |
| CAGE CODE | DWG SIZE | DOCUMENT NUMBER | SH NO. | REV | DOCUMENT NOMENCLATURE |
| D | 6503338 | 1 | D | | CONTAINER MK 786 MOD 0 |
| D | 6503338 | 2 | D | | CONTAINER MK 786 MOD 0 |
| D | 6503341 | 1 | C | | HOLDER |
| C | 6503342 | 1 | B | | BAG BARRIER |
| C | 6503343 | 1 | A | | SHIELD BOOSTER ELECTROSTATIC |
| C | 6503348 | 1 | A | | DAMAGE |
| C | 6503349 | 1 | A | | FILLER |
| C | 6503351 | 1 | A | | DAMAGE |
| C | 6213952 | 1 | - | | NAVERPLATE |
| 10001 | B | LD 256003 | | | AMMUNITION COMPONENT BOX MK 2 MOD 0 |
| STANDARD DOCUMENT ORDER DESK B, DA 40 | | | | | |
| 700 ROBBINS AVENUE, PHILADELPHIA, PA 19111-5094 | | | | | |
| MIL-B-117 | | | | | BAGS, SLEEVES AND TUBING |
| MIL-B-131 | | | | | BARRIER MATERIALS, WATER VAPOR PROOF, GREASE PROOF, FLEXIBLE, HEAT SEALABLE |
| A.A. 208 | | | | | INK MARKING, STENCIL |
| MIL-STD-100 | | | | | ENGINEERING DRAWING PRACTICES |
| MIL-P-82546 | | | | | PLASTIC FILM, CONDUCTIVE, HEAT TREATABLE |
| MIL-P-15024 | | | | | PLATES, TAGS AND BANDS FOR ID OF EQUIPMENT |
| MIL-P-15024/0 | | | | | NAME PLATES, ORAL / PLATES AND INFORMATION PLATES |
| DOCS-STD-2101 | | | | | CLASSIFICATION OF CHARACTERISTICS |
| FED-STD-101 | | | | | FEDERAL TEST METHOD |
| MIL-P-19834 | | | | | PLATES, IDENTIFICATION OR INSTRUCTION |
| MIL-A-121 | | | | | METAL FOIL |
| | | | | | ADHESIVE, BONDING |
| AMERICAN SOCIETY FOR TESTING AND MATERIALS | | | | | |
| 100 BARR HARBOR DRIVE, WEST CONSHOHOCKEN, PA 19428-2959 | | | | | |
| ASTM D4727/D4727M | | | | | CONFRUGATED AND SOLID FIBREBOARD SHEET |
| | | | | | STOCK (CONTAINER GRADE) AND CUT SHAPES |
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COMPUTER GENERATED DL
CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY

[illegible]

3760



NAVSEA OD32123/

25 APRIL 198

**PLAN
FOR CERTIFICATION OF
STANDARD MISSILE
TEST SYSTEMS**

prepared by
AIR AND OCEAN SYSTEMS DEPARTMENT

NAVAL WEAPONS STATION, SEAL BEACH

FLEET ANALYSIS CENTER

CORONA, CALIFORNIA

LIST OF EFFECTIVE PAGES

NAVSEA OD 32123A

| PAGE NUMBERS | CHANGE IN EFFECT | PAGE NUMBERS | CHANGE IN EFFECT |
|--------------|------------------|--------------|------------------|
| 1 through 1v | Revision A | | |
| 1 through 8 | Revision A | | |
| A-1, A-2 | Revision A | | |

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Corona, California 91720

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DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND
WASHINGTON DC 20362

IN REPLY REFER TO
8800
SER 6223/143
23 May 1984

NAVSEA OD 32123A

PLAN FOR CERTIFICATION OF STANDARD MISSILE TEST SYSTEMS

1. It is directed that this document be used for certification of STANDARD Missile Test Systems used in testing of components, sub-assemblies, sections, and rounds.
2. Copies of this document may be obtained from Fleet Analysis Center, Naval Weapons Station, Seal Beach, Corona Annex (Code 821), Corona, CA 91720.

A handwritten signature in dark ink, appearing to read "D. G. MacDougall", is positioned above the typed name.

D. G. MAC DOUGALL
CAPT, USN
STANDARD Missile Program Manager

CHANGE RECORD

NAVSEA OD 32123A

| CHANGE NUMBER | DATE | TITLE AND/OR BRIEF DESCRIPTION | SIGNATURE OF VALIDATING OFFICER |
|------------------|------|--------------------------------|---------------------------------|
| | | | |

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1. INTRODUCTION

1.1 Purpose

This plan sets forth the criteria, responsibilities, methods, and tests to be used in acquiring information needed to determine that STANDARD Missile test systems meet the standards required to qualify for certification as a prerequisite to testing of STANDARD Missile Types 1 and 2 components, assemblies, sections, and rounds. Test system certification serves the need to verify, without bias, that the constituents of the test system comply with invoked specifications under consistent, published guidelines. Test systems certified as a result of these efforts shall (1) effectively test all parameters, as required in weapon specifications, parameter documents, specification control drawings, and test procedures, and (2) provide consistently valid indication of production quality. Certification releases the test system for performing specific tests on specified parts and to approved test documentation.

1.2 Objective

1.2.1 The primary objective of test system certification is to assure that test systems used for Navy testing of STANDARD Missile have the accuracy, stability, and performance capabilities required.

1.3 Scope

Certification is required whether the test system or any of its components are government furnished, contractor furnished, or contractor built, when the test system is intended for government inspection in production, maintenance, environmental, or reliability testing of STANDARD Missile components, major assemblies, sections, rounds, or spares.

The test system certification program consists of performing the following functions on a continuing basis:

- a. Verify that test systems will measure the parameters or characteristics prescribed by the applicable requirements.
- b. Verify that the inherent test equipment error is within prescribed limits.
- c. Verify adequacy and completeness of procedures governing calibration and testing as related to applicable requirements.
- d. Verify that the test system is continually capable of performing its intended functions by evaluation of data obtained from equipment calibration and other data or activities as applicable.
- e. Verify that the test system is acceptably functional by on-site demonstrations.
- f. Determine comparability of measurements by performing correlation testing where applicable.

g. Recommend corrective actions, and operational and procedural improvements, where applicable, to the cognizant government agent.

1.4 General References

| | |
|----------------|---|
| MIL-STD-45662A | Calibration Systems Requirements |
| OD 32124 | Plan for Acceptance of Production Test Equipment |
| OD 11000 | Calibration of Commercial and Standard Measuring Test Equipment |
| MIL-STD-454 | Standard General Requirements for Electronic Equipment |
| WS 14151 | General Specification for Production Test Equipment |

1.5 Definitions

As used in this document, the following definitions apply:

1.5.1 Accuracy. The degree of agreement of the result of a measurement when compared to the true value of the measured quantity. Unless definite requirements are specified, the inherent test set measurement error shall be no greater than one-tenth of the tolerance specified for the attribute being tested. If this requirement cannot be met or if a one-sided tolerance limit is used, the sum of the test tolerance used for accept or reject decision and the test set measurement error shall not exceed the specified parameter tolerance. For ratio type test parameters with logarithmic tolerances expressed in dB, the dB figures will be used as linear numbers in calculating the allowable test set measurement error.

1.5.2 Calibration. The comparison of a standard or measuring equipment instrument with a standard of higher accuracy to ensure that the former is within specified limits throughout its range.

1.5.3 Certification. The confirmation of the test system's capability to verify conformance to the requirements for the test set and the items tested, through the evaluation and demonstration of the test system.

1.5.4 Correlation. The comparative analysis of test data from similar or equivalent test systems in testing like items at various locations and environments.

1.5.5 Evaluation. The definitive examination of a test system through test and analysis, to assess its condition, quality, and operational characteristics.

1.5.6 Stability. The capability of a test system to retain adjustable or defined fixed test characteristics within specified tolerances over specific periods of time without adjustment and to repeat measurements of non-variable values to the accuracy required for a given test parameter.

1.5.7 Test System. The functional measurement system used to test acceptability of material to pre-established criteria. The test system is composed of the following major elements:

1.5.7.1 Test set (including test equipment and ancillary hardware, control unit, and computer operating system).

1.5.7.2 Documentation (including test procedures, calibration procedures, and program listings).

1.5.7.3 Support functions (i.e., calibration system, maintenance system and practices, change control of test set and computer programs, system environment, and access control to the extent that they preclude a successful demonstration).

2.0 CERTIFICATION POLICY

2.1 General

2.1.1 Upon successful completion of test system demonstration and the evaluation of evidence of compliance with all formal test requirements, Fleet Analysis Center will, by formal correspondence, certify the test system or indicate corrective actions necessary to meet certification criteria.

2.2 Requirements Documents

2.2.1 Requirements documents for unit under test (UUT) and test system include weapons specifications, parameters documents, book form drawings, or specification control drawings as approved by the cognizant government agent and such other changes or deviations as required to document the baseline. Any unauthorized change to the requirements will void or preclude certification.

2.2.2 Requirements documents defining the appropriate baseline must be in place prior to evaluation of procedures that will be used during demonstration.

2.3 Testing Procedures

2.3.1 The initial delivery of test procedures including the applicable program listings must occur 30 days prior to any scheduled demonstration for certification. When the test procedure is submitted, it will be covered by local government change control. Any change deemed significant will cause the review cycle to begin again.

2.4 Test Equipment

2.4.1 New test systems which require formal documentation (drawings, etc.) will be subject to government change control after successful demonstration.

2.5 Procedure or Test Equipment Changes

2.5.1 Prior to implementation, FLTAC will be notified of minor changes to test procedures and test equipment previously certified. The technical agency will approve and implement the change with a FLTAC review to follow.

2.5.2 For test systems currently certified, design changes, or major modifications void certification. Copies of affected documents fully documenting the modifications shall be provided to FLTAC at least 30 days prior to demonstration of the modified test system. Modifications will require approval by the cognizant government agent (CGA) prior to incorporation. The certification process for changes will follow a modified form of paragraph 3.2, as applicable.

3.0 CERTIFICATION PROCESS

3.1 General

3.1.1 Figure 1 is a flow diagram of the process that is used to establish compliance with certification requirements. Generally, it is applicable to production, Naval Weapons Station, and depot level maintenance facility operations. Appendix A will be utilized for source or supplier certification.

3.2 Initialization

3.2.1 Contractor In-house Proofing. The contractor shall perform the reviews and tests necessary to verify, with a high degree of confidence, that the test system will perform the tests that are to be demonstrated.

3.2.2 Baseline Procedure to Customer. The contractor shall provide a baseline procedure in a format acceptable to the cognizant government agent for induction into local government change control system.

3.2.3 Demonstration Package. The demonstration package shall be provided by the contractor via the cognizant government agent and shall consist of:

3.2.3.1 Copy of the applicable test requirements documents (parameters document, book form drawing, or specification control drawing) and any approved changes thereto.

3.2.3.2 Copy of the procedure to be demonstrated (should contain no red-lines, and may be station generated).

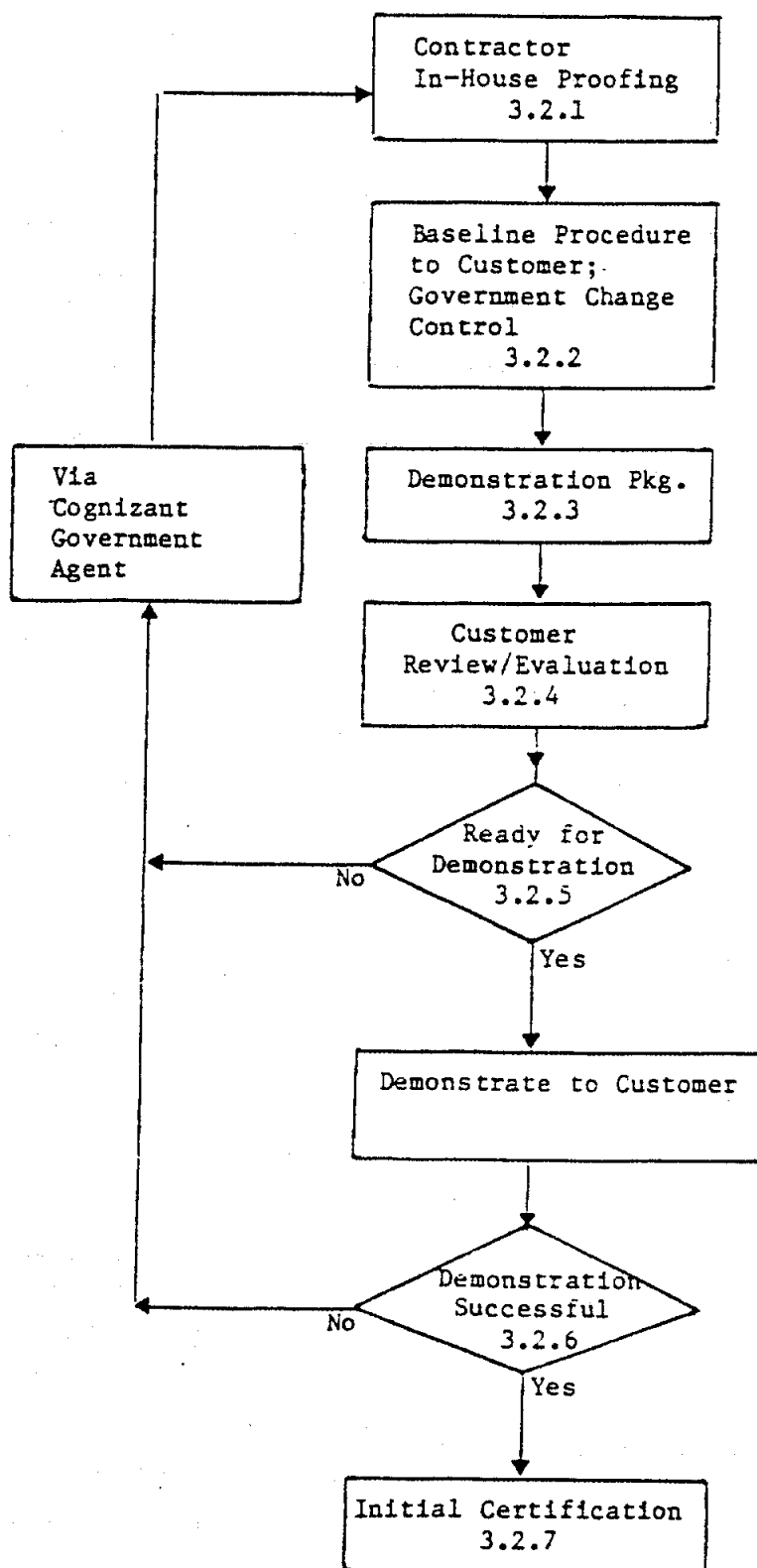
3.2.3.3 Copy of the equipment programming instruction.

3.2.3.4 Copy of the schematic drawings showing the interconnections of the test equipment instrumentation to the UUT.

3.2.4 Customer Review and Evaluation. The customer will require a period of 30 days to (1) provide sufficient review and evaluation of the documentation provided in the demonstration package, and (2) assess the readiness of the test system for certification. Each member of the customer review team consisting of CGA and certifying agent shall provide a review in their area of responsibility to ensure that all essential elements in the certification program are fulfilled resulting in minimum risk associated with the acceptance of STANDARD Missile.

3.2.4.1 Cognizant Government Agent. The CGA shall provide a cursory review to ensure that the demonstration package is complete, coherent, and of the proper revision strength. The test requirements documents and the procedure to be proofed shall be under government change control.

FIGURE 1. CERTIFICATION PROCESS



3.2.4.2 Certifying Agent. The certification agent shall evaluate the test system for compliance with the requirements. This evaluation will normally include verification that:

- a. All required tests are performed.
- b. Test results are checked against correct tolerance limits.
- c. Test techniques employed for each test satisfy a basic test accuracy ratio of 10:1 or as specified within established requirements.
- d. Critical timing sequences are per the requirements.
- e. Failing tests are properly flagged.
- f. Test data necessary to evaluate the UUT performance are properly stored.
- g. Test system initialization, shut-down, and data recovery routines are adequate.
- h. Comments will be addressed to the contractor via the cognizant government agent for action. Depending on magnitude, this may restart the 30 day period.
- i. Tasks which may be deferred until after initial certification are evaluation of test stability, repeatability, correlation analysis, and subtle programming deficiencies not apparent at the time of demonstration.

3.2.5 Demonstration Readiness Review. Upon completing the review of the demonstration package documents, and prior to demonstration to the customer, a team consisting of certifying agent, CGA, and contractor will convene to collectively assess the readiness of the test system for Navy demonstration and for subsequent approval of use in acceptance testing.

3.2.6 Demonstration. Successful completion of demonstration indicates the UUT and the test system should have passed all applicable test requirements as defined in the demonstrated test procedure. Concurrence by the CGA and FLTAC that this was achieved will constitute a successful demonstration. FLTAC will be provided with hard copy of test results for subsequent evaluation.

3.2.6.1 Minor procedure/program changes that occur during demonstration and that are agreed to by FLTAC and the CGA may be incorporated at the time of demonstration and do not preclude initial certification. These changes will be placed under local change control and will be reviewed by FLTAC subsequent to initial certification.

3.2.7 Initial Certification.

3.2.7.1 Upon completion of a successful demonstration, initial certification will be issued for a period not to exceed six months. For expediency, initial certification will normally be documented informally on-site by the cognizant FLTAC representative. Formally documented certification will be issued within 30 days thereafter.

3.2.7.2 Initial certification will identify the test set, test and calibration procedures, and the corresponding UUT.

3.2.7.3 Once initial certification is issued, the FLTAC analysis of quantitative test data and evaluation of test programs will continue to ensure that any risk in test system nonconformance with UUT test requirements is minimized. Corrective action proposals resulting from this effort will be submitted through cognizant Navy channels.

3.2.7.4 At the end of six months after initial certification, the test system will be reviewed for continued adherence to test requirements and an on-site test demonstration with correlation tests, as applicable, will be performed. This establishes the requirements for sustaining certification at periodic intervals.

3.3 Certification Renewal

Certified test systems shall be demonstrated periodically to verify continued adherence to certification requirements. The certification period for test systems is typically six months for new test systems and can be extended up to 24 months based upon historical test data. Certification renewal is also required in the event that the test system has been out of service six months or longer.

3.4 Special Certification

On a case-by-case basis, special certification may be applied by FLTAC to test systems that may not conform to previously defined certification criteria. Requirements for special certification will be defined by NAVSEA and FLTAC for the specific effort as the situation dictates.

4.0 ORGANIZATIONAL SUPPORT OF CERTIFICATION

4.1 Certification Agent. The Fleet Analysis Center (FLTAC), Corona, is the designated certification agent.

4.2 Cognizant Government Agent. The CGA shall be NAVPRO, DCAS, NAVSHIPWPNSYSENGSTA, or NAVSEATECHREP as applicable.

4.3 In-Service Engineering Agent. The designated In-Service Engineering agent is NAVSHIPWPNSYSENGSTA Port Hueneme.

4.4 Contractor. The contractor refers to STANDARD Missile prime contractors. Subcontractors ability and performance shall be the responsibility of the prime contractor.

4.4.1 Certification of a test system by the government in no way relieves the contractor from his responsibility for assuring continued accuracy and proper performance of the test equipment, and that the supplies and services delivered to the government are in conformance with contract requirements.

APPENDIX A

REQUIREMENTS FOR TEST SYSTEM DEMONSTRATION

1. To provide the certifying government agency with the information required to determine test system qualification, the testing activity shall demonstrate that each test system meets the certification criteria. To accomplish this goal, the contractor will prepare a certification demonstration procedure to serve as a basis for certification. This applies to source or supplier certification.

2. TEST SYSTEM QUALITY

2.1 Test system stability and accuracy by design will be demonstrated by the following:

a. The applicable engineering drawings, block diagrams, and equipment specifications.

b. The calibration and maintenance procedures to be used.

c. The specifications for units under test.

2.2 Stability and accuracy actually achieved will be demonstrated for each test set by the following:

a. Performing system calibration.

b. Performing repeatability tests on samples.

c. Evaluating test equipment performance data history for test stations in use prior to certification.

d. Correlating test results obtained with the same sample unit from different stations of identical design or in use for comparable tests.

3. TEST SYSTEM OPERATIONS

The test system, when implemented for its intended use, is required to perform in a manner compatible with product requirements, environmental conditions, repair and maintenance facilities, and production flow. The test system also must test adequately and thoroughly all specified parameters of the end item and its lower assembly levels.

3.1 Compatibility of test systems operation will be demonstrated by the following:

a. Performing routine production tests in accordance with applicable test procedures and test programs

b. Performing specified tests on the test hardware where applicable

c. Performing test set fault isolation tests

4. CONTROL FUNCTIONS

4.1 Implementation of controls over test system accuracy will be demonstrated by the following:

- a. Providing evidence that test stations are included in the calibration recall system.

- b. Proving traceability of each calibration to applicable standard.

4.2 Controls over test operations will be demonstrated by the following:

- a. Documenting formal test procedures and test programs.

- b. Implementing access control such as "tamper proof" seals on test hardware to protect test equipment from unauthorized rework, adjustment, or modification.

- c. Establishing test station log books.

- d. Instituting quality assurance provisions governing all production and acceptance testing.

4.3 Test station configuration controls in use will be demonstrated by the following:

- a. Providing for records of maintenance and repair actions in the test station log books.

- b. Providing for records of formal engineering change proposals for modifications to test systems and associated documentation.

5. CERTIFICATION DEMONSTRATION PROCEDURE

5.1 The certification demonstration procedure to be used for test system capability evaluation shall provide a method to obtain objective evidence of: (a) required and actual stability and accuracy, (b) satisfactory performance, and (c) adequate controls. To this end it is necessary that the CDP contain, in detail, the interrelationships among engineering design requirements of units under test, test systems capabilities, and controlling documentation for test systems and product. Specifically, and as a minimum requirement, the contractor in his CDP will address all of the preceding aspects of production and acceptance testing, under a plan for demonstrating the requirements of paragraphs 1 through 4 of this appendix.

PAST PERFORMANCE MATRIX

| | Reference 1 | Reference 2 | Reference 3 |
|--|-------------|-------------|-------------|
| References | | | |
| \$ Value of contract | | | |
| Work Description | | | |
| Contract Completed on Time YES/NO Contract Completed at Cost YES/NO (if no % of overrun) | | | |
| Provide Explanation for NO answers | | | |

REFERENCES COLUMN SHOULD INCLUDE GOVERNMENT ACTIVITY/COMPANY NAME, ADDRESS
POC AND TELEPHONE NUMBER.

Code Ident
53711

WS-32616

*includes up to
SEN 5*

NAVAL SEA SYSTEMS COMMAND

DEPARTMENT OF THE NAVY

CRITICAL ITEM PRODUCT FABRICATION SPECIFICATION

FOR

BOOSTER, FUZE,

MK 73 MOD 0

This specification consists of pages i to ii
and pages 1 through 24 inclusive.

Approved:

[Signature]

FSC-1336

STANDARDS

Federal

FED-STD-H28

Inspection of Screw Threads.

Military

MIL-STD-129

Marking for Shipment and Storage.

MIL-STD-331

Fuze and Fuze Components, Environmental and Performance Tests for.

MIL-STD-414

Sampling Procedures and Tables for Inspection by Variables for Percent Defective.

MIL-STD-453

Inspection, Radiographic.

MIL-STD-810

Environmental Test Methods and Engineering Guide Lines.

MIL-STD-831

Test Reports, Preparation of.

MIL-STD-45662

Calibration Systems Requirements.

DRAWINGS

Naval Air Systems Command
(Code Ident 30003)

LM 1635922

Lead, Explosive, MARK 8 MOD 0.

LM 3300320

Lead, Explosive, MARK 12 MOD 2.

Naval Sea Systems Command
(Code Ident 53711)

DL 6503332

Booster, Fuze, MK 73 MOD 0.

SA 2875551

Vibration Test Adapter.

SA 6503340

Block, Test Initiation.

OTHER PUBLICATIONS

Naval Sea Systems Command
(Code Ident 53711)

NAVSEA OD32123A

Plan for Certification of Standard
Missile Test Systems.

(Copies of specifications standards, drawings, and publications required by contractors in connection with specified procurement functions should be obtained from the contracting activity or as directed by the contracting officer).

2.2 Non-Government documents. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

AMERICAN SOCIETY FOR TESTING AND MATERIALS

ASTM-A 108

Steel Bars, Carbon, Cold-Finished,
Standard Quality.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

CODE OF FEDERAL REGULATIONS

49 CFR 171-179

Transportation

(Application for copies should be addressed to the Superintendent of Documents, Government Printing Office, Washington, DC 20402.)

3. REQUIREMENTS.

3.1 Item definition. The booster initiates the warhead of a guided missile and is composed of an inert housing assembly and an explosive pellet containing 110 grams of CH-6. The booster consists of the following major components (see Figure 1):

| <u>Component</u> | <u>Drawing number</u> |
|----------------------|-----------------------|
| Booster Sleeve | 6503334 |
| Housing Closure | 704AS2303 |
| Pellet | 704AS2302 |
| Pellet Housing | 6503336 |
| Retaining ring | 704AS2305 |
| Identification Plate | 6503336 |
| Vibration Isolator | 6283730 |

3.1.1 Government furnished property list. When specified in the contract or purchase order, the contracting activity will furnish the contractor with the following in the quantity specified (see 6.2.1):

| <u>Item</u> | <u>Quantity</u> |
|---|---|
| RDX Composition CH-6 in accordance with MIL-C-21723 | Approximately 120 percent of the net production requirement. |
| Explosive Lead, MARK 8 MOD 0 | Approximately 120 percent of the total test quantity requirement. |
| Explosive Lead, MARK 12 MOD 2 | Approximately 120 percent of the total test quantity requirement. |
| Exploding Bridgewire Detonator | Approximately 120 percent of the total test quantity requirement. |

3.2 Characteristics.

3.2.1 Performance.

3.2.1.1 Function. The booster shall function as required when initiated by an explosive train consisting of an Exploding Bridgewire Detonator, a MK 12 MOD 2 Explosive Lead, and a MK 8 MOD 0 Explosive Lead.

3.2.1.2 Function and output. The acceptability criteria $(X-L)/S$ shall be as defined by MIL-STD 414, Single Specification Limit, Form 1, variability unknown, Standard Deviation Method. The lower limit, L , to be used in this computation shall be 160 inch. If $(X-L)/S$ is equal to or greater than 2.00, the booster sample shall be considered as having passed this test. If $(X-L)/S$ is less than 2.00, the sample shall be considered a failure. In addition a dent of less than 0.140 inch from any booster shall be considered as a failure of the sample.

3.2.2 Mechanical.

3.2.2.1 Booster assembly. The booster assembly shall be in accordance with Drawing 6503332(see FED-STD-H28).

3.2.2.2 Booster sleeve. The booster sleeve shall be in accordance with Drawing 6503334.

3.2.2.3 Housing closure. The housing closure shall be in accordance with Drawing 704AS2303.

3.2.2.4 Pellet. The pellet shall be in accordance with Drawing 704AS2302

3.2.2.5 Pellet housing. The housing cup shall be in accordance with Drawing 6503336.

3.2.2.6 Retaining ring. The retaining ring shall be in accordance with Drawing 704AS2305.

3.2.2.7 Identification plate. The identification plate shall be in accordance with Drawing 6503333.

3.2.3 Radiographic inspection: The booster shall be free from defects such as cracks, voids, fissures, or low density areas when radiographed in accordance with 4.4.3.

3.2.4 Environmental. The booster shall not be damaged, nor shall safety or subsequent performance be degraded, by exposure to any natural combination of service use environments. These shall include, but shall not be limited to, the following environments:

3.2.4.1 Transportation vibration-temperature (nondestructive). The booster shall meet the requirements of MIL-STD-331, Test 124, Procedure I, except the test durations and temperatures shall be as indicated in 4.4.4.1(b) and (c), and shall be safe to handle and shall function with the proper output after the test.

3.2.4.2 Temperature and humidity (nondestructive). The booster shall meet the requirements of MIL-STD-331, Test 105.1, either method, 14-day period, and shall be safe to handle and shall function with the proper ~~output~~ *put* after the test.

3.2.4.3 Missile flight vibration (nondestructive). The booster shall meet the requirements of MIL-STD-810, Method 514.3, Equipment Category 5, Procedure I, except the vibration spectrums shall be as indicated in Figures 7 and 8, and shall be safe to handle and shall function with the proper output after the test.

3.2.4.4 Twelve-meter drop (destructive). When installed in a simulated warhead, the booster shall meet the requirements of MIL-STD-331, Test 103.2, Procedure 1, and shall be safe to handle and dispose of after the test.

3.2.4.5 Jolt (destructive). The booster shall meet the requirements of MIL-STD-331, Test 101.3, Procedure I, and shall be safe to handle and dispose of after the test.

3.3 Design and construction.

3.3.1 Production drawings. The booster shall be manufactured and assembled in accordance with the drawings and documents listed on DL 6503332 and as specified herein.

3.3.2 Standards of manufacture. The booster shall be manufactured, inspected, and tested to meet the requirements specified herein.

3.3.3 Workmanship. Workmanship during manufacture of the booster shall meet the requirements of MIL-A-2550. Workmanship shall not be limited solely to the specification and shall not preclude the use of time and labor saving techniques commensurate with the expendable nature of the booster, provided that performance and safety are in no way jeopardized.

3.4 First article.

3.4.1 Preproduction sample. Unless otherwise specified in the contract or purchase order, a preproduction sample of 30 boosters shall be delivered to the testing activity designated in the contract or purchase order for preproduction testing (see 6.2.1 and 6.3). The preproduction sample shall be manufactured using the same methods, materials, processes, and procedures proposed for production. Any production prior to acceptance of the preproduction sample is at the risk of the contractor. After approval of the preproduction sample, changes in materials, parts, procedures, design or processes shall require the written approval of the procuring activity.

4. QUALITY ASSURANCE PROVISIONS.

4.1 General. Inspections and tests required by this specification are classified as follows:

(b) Quality conformance inspections (see 4.2).

4.1.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein (see 6.2.1). Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the contracting activity. The contracting activity reserves the right to perform any of the inspections set forth in this specification where such inspections are deemed necessary to ensure that supplies and services conform to prescribed requirements.

4.1.2 Responsibility for compliance. All items shall meet all requirements of Sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the contracting activity for

acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

4.1.3 Special tests and examinations.

4.1.3.1 Preproduction inspections. The preproduction sample of 30 boosters shall be subdivided and subjected to the tests and inspections of Figure 2 in the sequence shown. The rejection of any sample unit shall be cause for rejection of the preproduction sample.

4.2 Quality conformance inspections.

4.2.1 Inspection lot. The term inspection lot, as applied to the contracting activity inspection of boosters, shall mean all boosters of a production lot submitted at one time for acceptance.

4.2.2 Production lot. Unless otherwise specified in the contract or purchase order, a production lot shall consist of 190 to 1,000 boosters. The production lot is comprised of both the deliverable boosters and the boosters required for test purposes (see 6.2.1).

4.2.3 Lot acceptance tests. All boosters of an inspection lot shall be ~~subjected to the~~ tests and inspections of Figure 3 in the sequence shown.

4.2.3.1 Sampling. Sampling for lot acceptance tests and inspections shall be in accordance with MIL-STD-414, Inspection Level II, Standard Deviation Method, Variability Unknown. Sample size shall be in accordance with MIL-STD-414.

4.3 Test conditions and provisions.

4.3.1 Test conditions. Unless otherwise specified herein, the test methods of 4.4 shall be performed under the following conditions:

- | | |
|-------------------------|---|
| (a) <u>Temperature:</u> | Room ambient of 65 degrees Fahrenheit (°F) to 95°F. |
| (b) <u>Altitude:</u> | Normal ground elevation. |
| (c) <u>Humidity:</u> | Room ambient to 40 percent relative humidity maximum. |

4.3.2 Test and inspection equipment and facilities. The contractor shall furnish and maintain all necessary test equipment, facilities, and personnel necessary to perform all acceptance tests. The test equipment shall be of sufficient accuracy and quality to permit satisfactory performance of the required tests and examinations.

4.3.3 Test equipment calibration and certification. Test equipment shall be calibrated and maintained in accordance with a plan meeting the requirements of MIL-STD-45662. All test equipment shall be certified in accordance with the requirements of NAVSEA OD32123A. The calibration and certification plan shall be approved by the Government prior to use (see 6.2.2).

4.3.4 Test plan and test procedures. When specified in the contract or purchase order and using MIL-STD-883 as a guide, the contractor shall prepare and submit to the Government for approval, a test plan and test procedures prior to testing (see 6.2.2).

4.3.5 Gages. The contractor shall provide whatever gages are necessary and adequate to ensure that the material to which this specification applies meets the dimensional requirements shown on the applicable drawings. When specified in the contract or purchase order, the contracting activity will furnish drawings of pertinent Navy final inspection gages.

4.4 Test methods.

4.4.1 Function.

WARNING

The function and output test involves hazardous operations and requires the *exercise of extremely stringent safety* precautions and procedures, experienced ordnance personnel, suitable equipment and facilities, and comprehensive safety reviews (see 6.5).

4.4.1.1 Function and output test. The test operation, and procurement of test equipment and materials (with the exception of those listed in the contract or purchase order) shall be the responsibility of the contractor. A list of required test equipment and materials is contained in 4.4.1.1.1.

4.4.1.1.1 Required test equipment and materials. The following test equipment and materials are required to perform the function and output test, and it is assumed that an exploding bridgewire detonator will be used to initiate the booster (see 6.4):

- (a) Test initiation block (see Drawing SA 6303340).
- (b) Lead, Explosive, MARK 8 MOD 0 (LM 1635922).

- (c) Lead, Explosive, MK 12 MOD 2 (LM 2238084).
- (d) Exploding bridgewire detonator of 0.190 ± 0.001 inch diameter with an output charge of 70 ± 10 milligrams of pentaerythritol tetranitrate (PETN) pressed at $10,000 \pm 500$ pounds per square inch (lb/in^2).

NOTE: When specified in the contract or purchase order, the contracting activity shall supply the exploding bridgewire detonator as contracting activity furnished equipment (see 3.1.1 and 6.2.1). A contractor-selected detonator may be used subject to the approval of the output characteristics by the procuring activity. Approval of the contractor-selected detonator does not imply approval of its safety characteristics.

- (e) Dent block in accordance with Figure 4.
- (f) Dial indicator height gage with a probe point in accordance with Figure 5 and subject to the approval of the procuring activity prior to use.
- (g) Detonator firing source, low current resistance meter, and interconnecting cables for the detonator of 4.4.1.1.1(d) and in accordance with the contractor's facility and safety procedures.
- (h) Firing bay or barricades for the blast and fragment hazards of the booster.
- (i) Fast drying glue.

4.4.1.1.2 Test method. The booster shall be subjected to the function and output test as follows:

- (a) Place the steel dent block on a 2 inch thick steel plate at least as large as the dent block.
- (b) Screw the loaded test initiation block (see Drawing SA 6503340), without the detonator, into the booster by hand until the block bottoms. The upper surface of the threaded flange shall be flush ± 0.020 inch with the end of the sleeve of the booster.

- (c) Place the booster in the center of the dent block (see Figure 6).

NOTE: The installation and wiring of the detonator shall be performed in accordance with the contractor's safety procedures. The following steps, 4.4.1.1.2(d) through (l), are suggested as good safety procedures appropriate for the hazards involved.

- (d) Clear the firing area of all nonessential personnel and equipment.
- (e) Verify that the detonator leads are shorted and that ordnance personnel, the firing cables, and the booster assembly are grounded.
- (f) Verify that the firing cables are not connected to the firing source and that the firing source is in the safe condition.
- (g) Insert the detonator into a hand-safe containment block, remove the short from the detonator leads, connect the detonator leads to the firing cable, and insulate the connections.
- (h) Place a fast drying glue on the side of the detonator. *Insert the detonator into the test initiation block (see Figure 6)* so that the top of the detonator is flush to 0.005 inches below flush of the top of the test initiation block.
- (i) Remove all remaining personnel and nonexpendable equipment from the test bay and verify that all openings through which fragments could escape are secured.
- (j) Connect the firing cable to the firing source.
- (k) Verify that all personnel are clear, sound the firing alarm, and fire the detonator.
- (l) Resecure the firing source, disconnect and short the firing cables, allow five minutes to elapse, and retrieve the dent block.

4.4.1.1.3 Acceptance criteria. To determine conformance with 3.2.1.2, the dent produced during the function and output test shall be measured in accordance with 4.4.1.1.3.1, and shall be used to compute the acceptability

criteria $(\bar{X}-L)/S$ as defined by MIL-STD-414, Single Specification Limit, Form 1, Variability Unknown, Standard Deviation Method. The lower limit, L , to be used in this computation shall be 0.160 inch. The lot shall have met this requirement if the quantity $(\bar{X}-L)/S$ is equal to or greater than 2.00. If the quantity is less than 2.00, the lot shall be rejected. In addition, a dent of less than 0.140 inch from any one booster shall be cause for rejection of the lot.

4.4.1.1.3.1 Dent measurement procedure. Before measurement, remove all foreign material from the dent. Measurements shall be taken using the dial indicator height gage (or equivalent) and probe of 4.4.1.1.1(f). Zero the indicator with the point of the probe in the deepest part of the dent. Take two readings at points on opposite sides of the dent near the outer edges of the dent block. Average the last two readings to obtain the depth of the dent (see Figure 7).

4.4.2 Mechanical. All major components and subassemblies shall be inspected for conformance to the requirements of the drawings and documents listed on DL 6503332.

4.4.2.1 Booster assembly. The booster assembly shall meet the requirements of 3.2.2.1.

4.4.2.2 Booster sleeve. The booster sleeve shall meet the requirements of 3.2.2.2.

4.4.2.3 Housing closure The housing closure shall meet the requirements of 3.2.2.3.

4.4.2.4 Pellet. The pellet shall meet the requirements of 3.2.2.4.

4.4.2.5 Housing cup. The housing cup shall meet the requirements of 3.2.2.5.

4.4.2.6 Retaining ring. The retaining ring shall meet the requirements of 3.2.2.6.

4.4.2.7 Identification plate. The identification plate shall meet the requirements of 3.2.2.7.

4.4.3 Radiographic Inspection. The booster shall be radiographically inspected along the X, Y, and Z axes (see Figure 1). For the X axis, the radiographic film density shall be measured within an area located within 0.75 inches from the center of the device. For the Y and Z axes, the procedure shall be in accordance with MIL-STD-453. Each radiograph shall be inspected for any evidence of cracks, voids, fissures, or low density areas within the explosive pellet. To be acceptable, the booster must meet the requirements of 3.2.3.

4.4.4 Environmental.

4.4.4.1 Transportation vibration-temperature (nondestructive). The booster shall be installed in the shipping and storage container (see Drawing 6503337) and tested in accordance with MIL-STD-331, Test 124, Procedure I, with the following exceptions:

- (a) The booster/shipping container assembly and vibration block shall be preconditioned for a minimum of 4 hours at the required temperature ($\pm 3.6^{\circ}\text{F}$) prior to vibration. When changing axes, allow 2 minutes reconditioning time for each minute required to change axis, not to exceed 4 hours.
- (b) The control accelerometer shall be mounted on the shaker table as close as possible to the shipping and storage container.
- (c) The vibration test duration shall be reduced to 2 hours per axis (6 hours total at each temperature).
- (d) The temperature conditions shall be changed to -40 and $+145^{\circ}\text{F}$ ($\pm 3.6^{\circ}\text{F}$).
- (e) For preproduction testing only, one half of the booster sample shall be subjected to the vibration schedules at both temperatures; thus, one group of boosters shall be tested for 12 hours, or 6 hours at each of two different temperatures (see Figure 2).

To be acceptable, the booster shall meet the requirements of 3.2.4.1.

4.4.4.2 Temperature and humidity (nondestructive). The booster shall be tested in accordance with MIL-STD-331, Test 105.1, either method, except the test shall be conducted for one 14-day period. To be acceptable, the booster shall meet the requirements of 3.2.4.2.

4.4.4.3 Missile flight vibration (nondestructive). The booster shall be installed on the vibration test adapter of Drawing SA 2875551 and tested in accordance with MIL-STD-810, Method 514.3, Equipment Category 5, Procedure I, with the following exceptions:

- (a) The vibration test adapter shall be mounted securely to a block-type fixture which may hold more than one booster and simultaneously test boosters in more than one axis, providing the other conditions of the test are satisfied.
- (b) A minimum of one booster in each axis shall be randomly selected and affixed with a response accelerometer mounted to the booster sleeve to provide corroboration of the input accelerations delivered.

- (c) One half of the booster sample shall be preconditioned for a minimum of 2 hours and then tested at a steady-state temperature of $-50^{\circ}\text{F} \pm 3.6^{\circ}\text{F}$ for vibration. The remaining boosters shall be similarly preconditioned and tested at a steady-state temperature of $+170^{\circ}\text{F} \pm 3.6^{\circ}\text{F}$ (see Figure 2). When changing axes, allow 2 minutes reconditioning time for each minute required to change axes, not to exceed two hours.
- (d) Vibrate the boosters for two hours along the X-axis (see Figure 1) in accordance with the spectrum specified on Figure 8).
- (e) Vibrate the boosters for two hours along the Y-axis (see Figure 1) in accordance with the spectrum specified on Figure 9.
- (f) Vibrate the boosters for two hours along the Z-axis (see Figure 1) in accordance with the spectrum specified on Figure 9.

To be acceptable, the booster shall meet the requirements of 3.2.4.3.

4.4.4.4 Twelve meter drop (destructive). The booster shall be installed on inert, dummy, or simulated fuzes which are then installed in inert, dummy, or simulated warheads approved by the procuring activity (see 5.2.1) and shall be tested in accordance with MIL-STD-331, Test 103.2, Procedure 1. Breakage of the explosive pellet, the housing cup, or the presence of *loose pieces of explosive in the warhead fuse well shall not be considered* criteria for failing the test. To be acceptable, the booster shall meet requirements of 3.2.4.4.

4.4.4.5 Jolt (destructive). The booster shall be mounted to the vibration test adapter of Drawing SA 2875551 and tested in accordance with MIL-STD-331, Test 101.3, Procedure I. To be acceptable, the booster shall meet the requirements of 3.2.4.5.

4.4.5 Packaging, packing, and marking. Prior to shipment, packaging, packing, and marking shall be examined to ensure conformance to the requirements of Section 5.

5. PREPARATION FOR DELIVERY.

5.1 Preservation and packaging. Preservation and packaging shall be in accordance with Drawing 6503337.

5.2 Packing. Packing shall be in accordance with Drawing 6503337.

5.3 Marking. In addition to any special marking required by the contract or purchase order (see 6.2.1), all marking shall be in accordance with Drawing 6503332, MIL-STD-129, and Code of Federal Regulations 49 CFR 171-179.

6. NOTES.

6.1 Intended use. The booster is a component in the Flight Termination System (FTS) for the Standard Missile-2 Block IIIA system.

6.2 Ordering data.

6.2.1 Procurement requirements. Procurement documents should specify the following:

- (a) Number, title, and date of this specification.
- (b) Contracting activity furnished property (see 3.1.1 and 4.4.1.1.1).
- (c) Preproduction sample, if different from 3.4.1.
- (d) Designated activity to perform preproduction sample testing (see 3.4.1).
- (e) Responsibility for inspection (see 4.1.1).
- (f) Production lot if different from 4.2.2.
- (g) Warhead for twelve-meter drop test (see 4.4.4.4)
- (h) Marking (see 5.3.)

6.2.2 Data requirements. When this specification is used in an acquisition which incorporates a DD Form 1423, Contract Data Requirements List (CDRL), the data requirements identified below should be developed as specified by an approved Data Item Description (DID) (DD Form 1664) and delivered in accordance with the approved CDRL incorporated into the contract. When the provisions of DAR 7.104.9(n)(2) are invoked and the DD Form 1423 is not used, the data specified below should be delivered by the contractor in accordance with the contractor or purchase order requirements. Deliverable data required by this specification is cited in the following requirements.

| <u>Paragraph</u> | <u>Data Requirement</u> | <u>Applicable DID No.</u> | <u>Option</u> |
|------------------|-------------------------------|---------------------------|---------------|
| 4.3.3 | Calibration Plan | UDI-T-23742A | --- |
| 4.3.4 | Test Plan and Test Procedures | DI-T-5204 | --- |

(DIDs related to this specification and identified in Section 6 will be approved and listed as such in DOD 5010.12L, AMSDL. Copies of DIDs required by the contractors in connection with specific acquisition functions should be obtained from the Naval Publications and Forms center or as directed by the contracting officer.)

6.3 Preproduction sample waiver. At the discretion of the procuring activity, the requirement for a preproduction sample may be waived when production under a new contract by the same contractor, at the same location, follows the manufacture of satisfactory components covered by this specification.

6.4 Detonator for function and output test. The test equipment of 4.4.1.1.1 assumes that an exploding bridgewire detonator will be used to initiate the booster. While similar boosters have been tested for many years without the use of an out-of-line mechanism or an exploding bridgewire detonator, this procedure is not recommended.

6.5 Explosives safety precautions. Minimum explosive safety precautions for use by the contractor are detailed in DoD Instruction 4145.26M, DoD Contractors' Safety Manual for Ammunition, Explosives, and Related Dangerous Material.

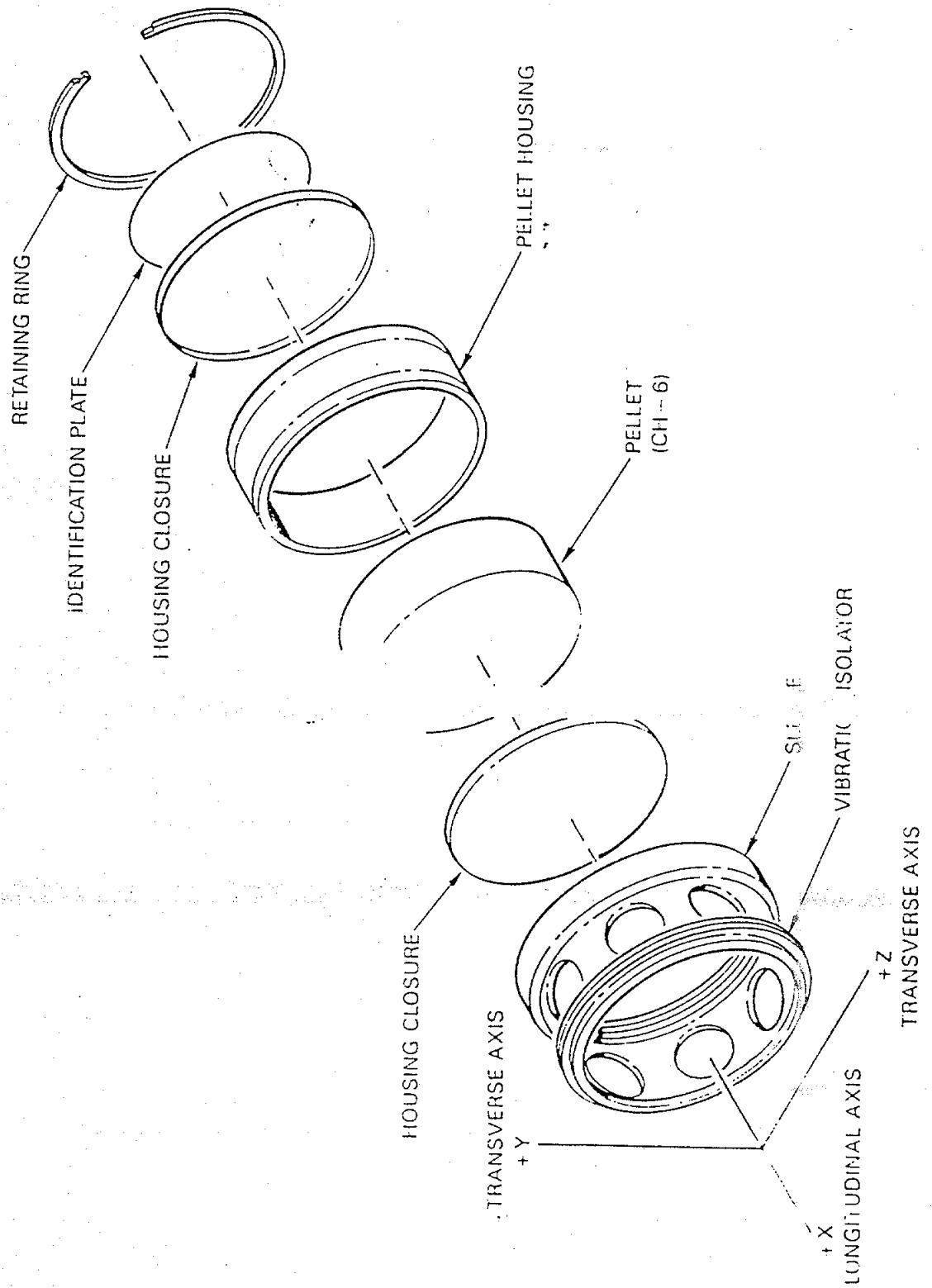
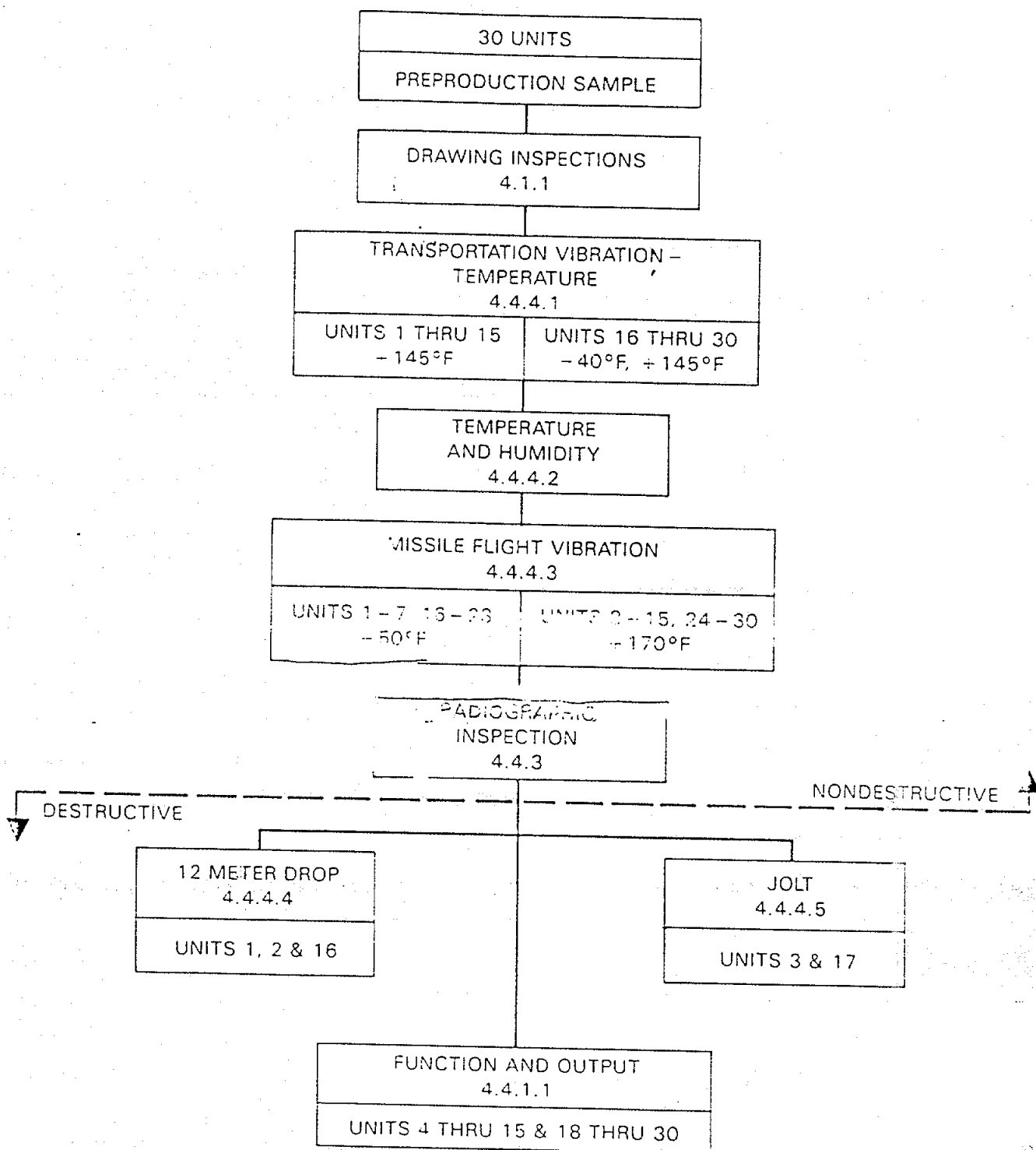


Figure 1 MK 77 MOD 0 Fuze Booster

Figure 2. Preproduction Sample Test Sequence

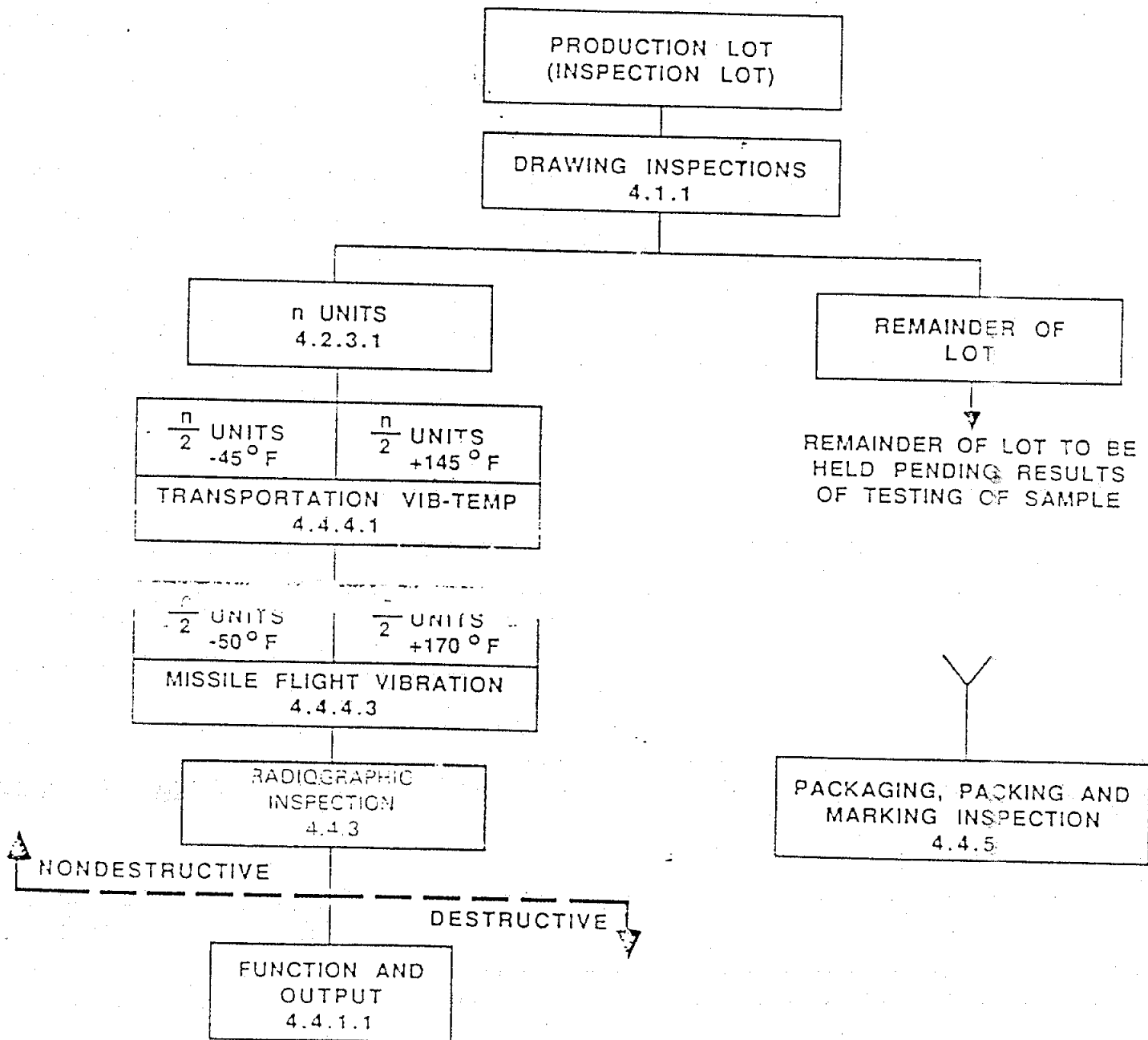
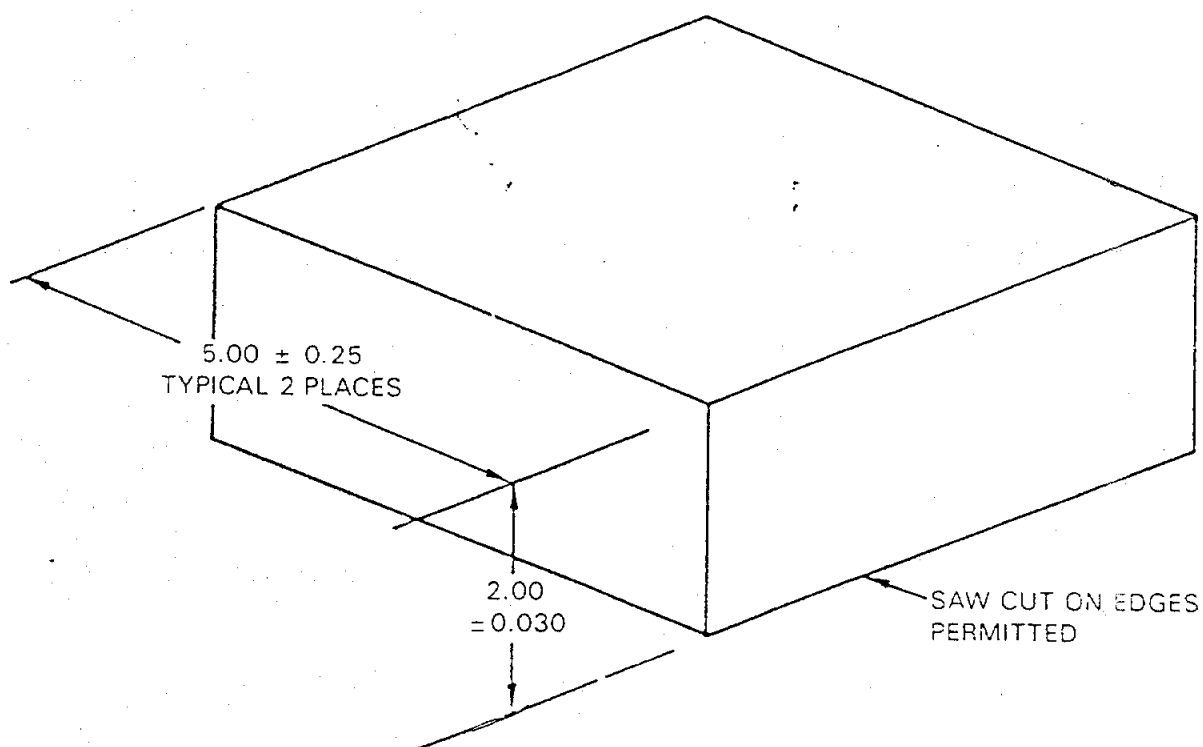


Figure 3. Lot Acceptance Test Sequence.



NOTE: DIMENSIONS ARE IN INCHES

MATERIAL: STEEL, COLD FINISHED BAR IN ACCORDANCE WITH ASTM A108, GRADE 1018 OR 1020, ROCKWELL HARDNESS B70 TO B95 ON TEST SURFACE, SURFACE CONDITION AS ROLLED. UPPER AND LOWER SURFACES SHALL BE CLEAN AND FREE FROM RUST, BURRS, DENTS AND PITS DEEPER THAN 0.020.

Figure 4. Dent Block.

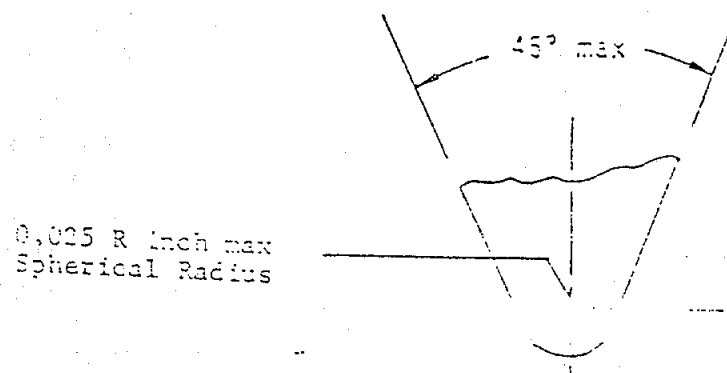


Figure 5. Dial Indicator Probe Point.

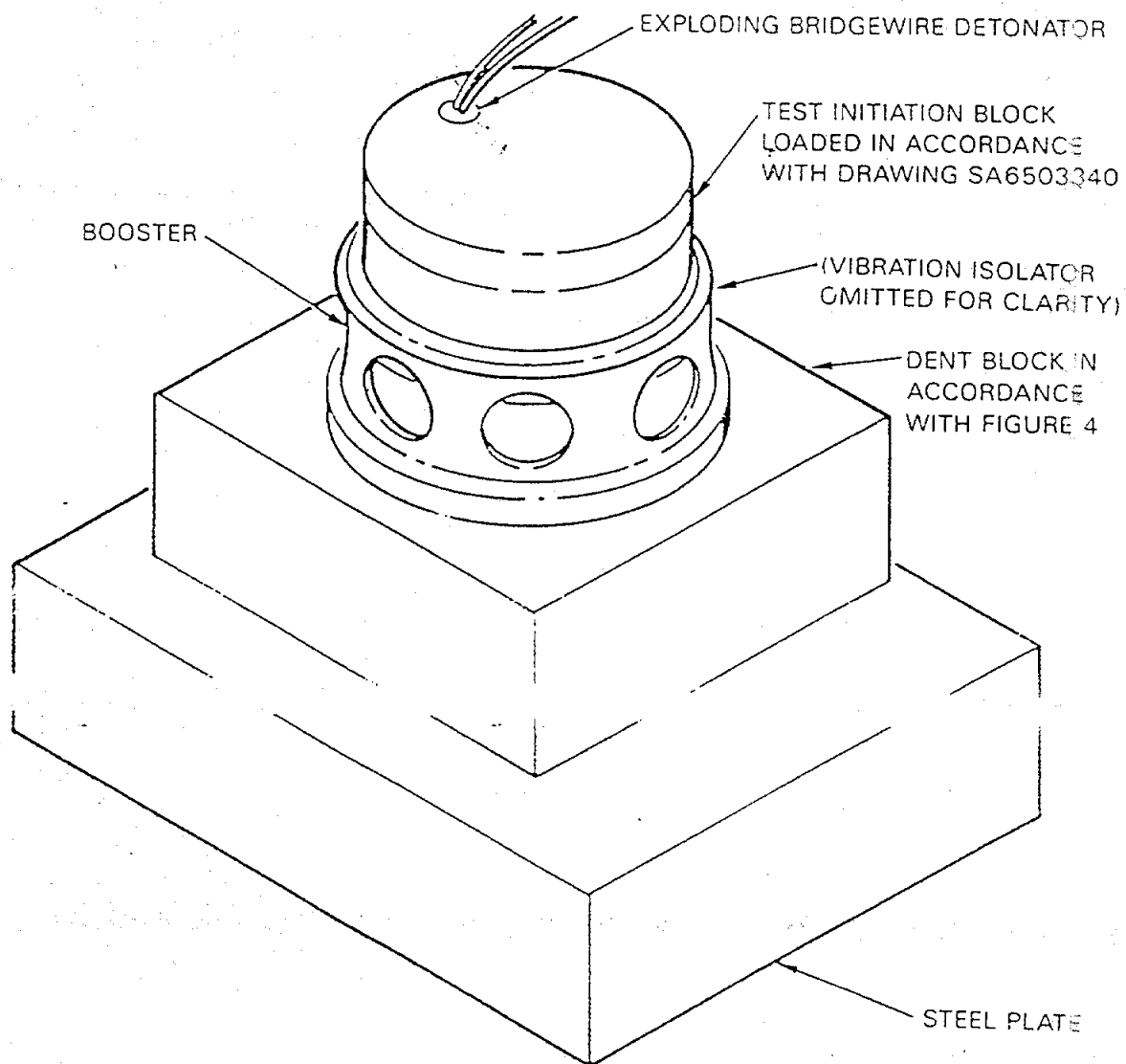


Figure 6. Function and Output Test Setup.

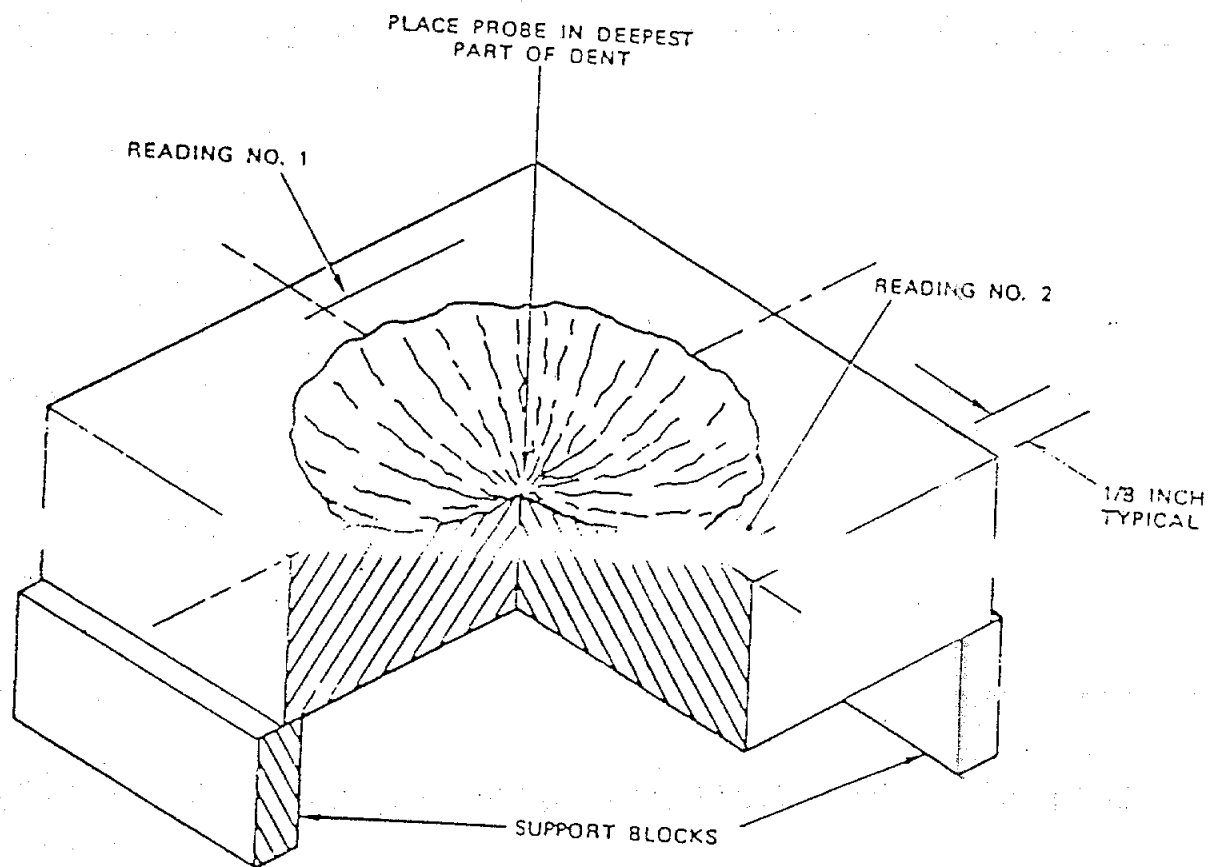
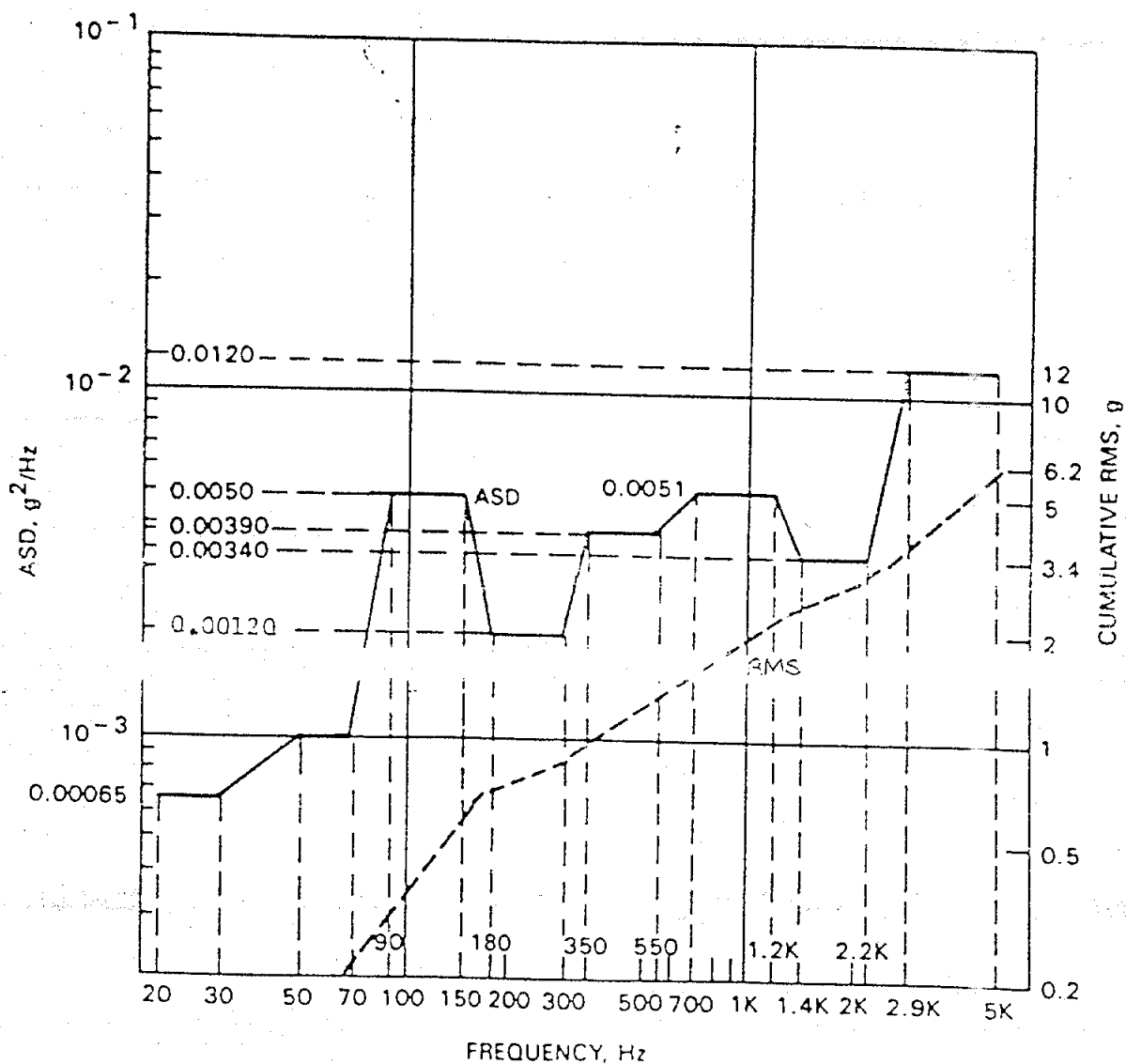
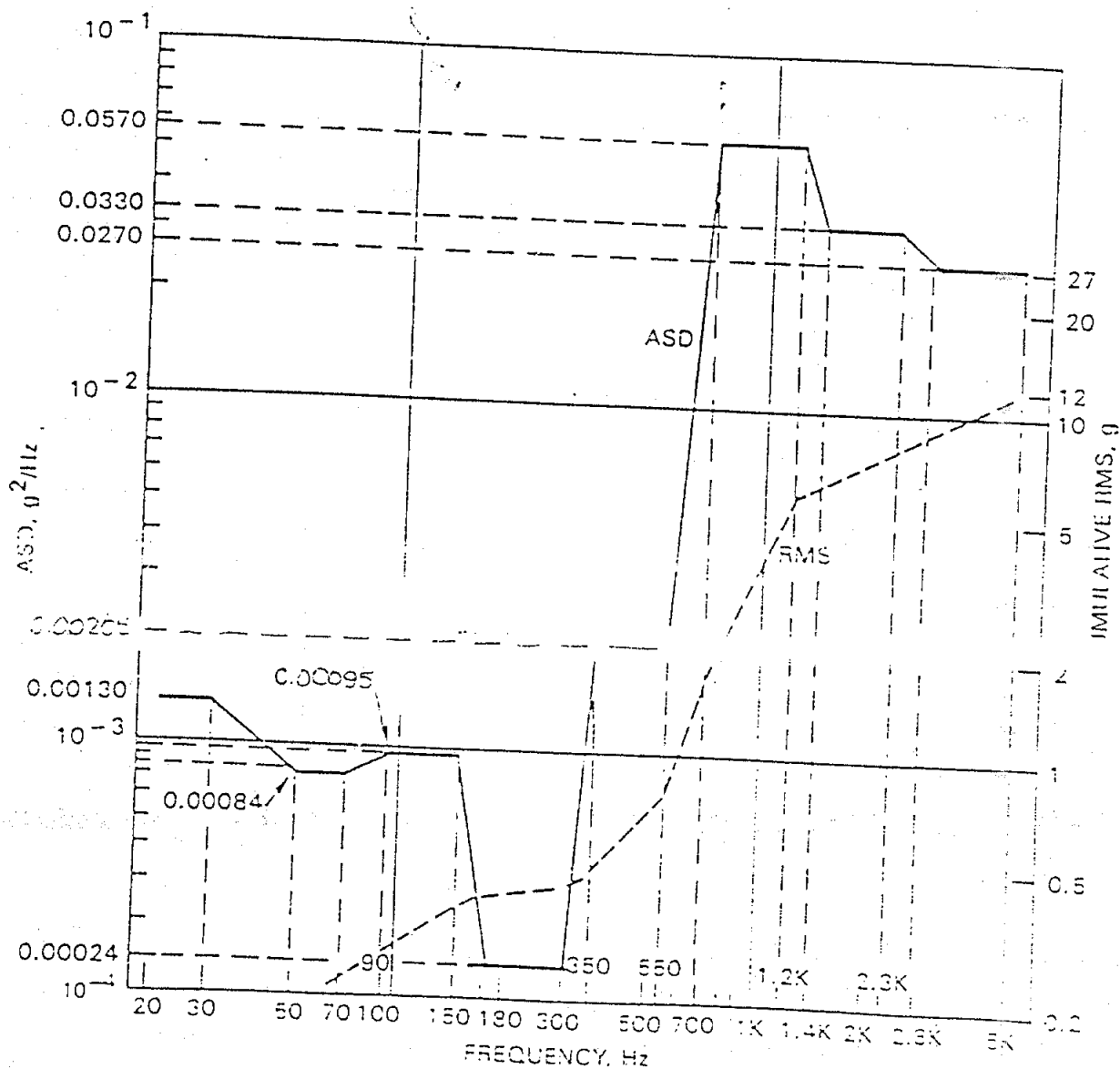


Figure 7. Dent Measurement.



NOTE: Apply the spectra shown for 10 + 1, -0 seconds, followed by 40 + 4, -0 seconds of vibration with the level attenuated 5 + 2, -0 dB, followed by 190 + 4, -0 seconds of vibration with the level attenuated 11 + 5, -0 dB.

Figure 8. Missile Flight Vibration Spectrum (Longitudinal Axis).



NOTE: Apply the spectra shown for 10 - 1, -0 seconds, followed by 40 - 4, -0 seconds of vibration with the level attenuated 5 - 2, -0 dB, followed by 190 - 4, -0 seconds of vibration with the level attenuated 11 - 5, -0 dB.

Figure 9. Missile Flight Vibration Spectrum (Transverse Axis).

SPECIFICATION CHANGE NOTICE

(SEE MIL-STD-490 FOR INSTRUCTIONS)

DATE PREPARED 1/23/89

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| 7. SYSTEM DESIGNATION SM MK 73, MOD 0 | 8. RELATED ECP NO. 14255 (14255.1) | 9. CONTRACT NO. N/A | | 10. CONTRACTUAL ACTION N/A |
| 11. CONFIGURATION ITEM NOMENCLATURE BOOSTER | | 12. EFFECTIVITY N/A | | |

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16. TECHNICAL CONCURRENCE

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By direction *James L. Barry*

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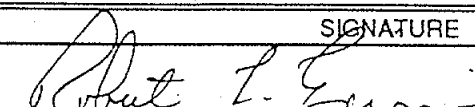
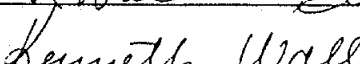
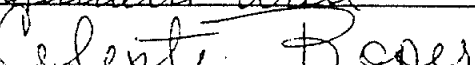
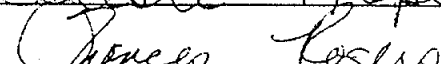
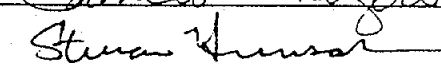
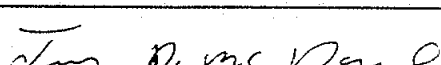
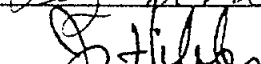
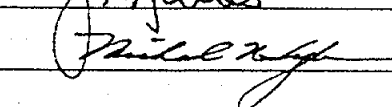
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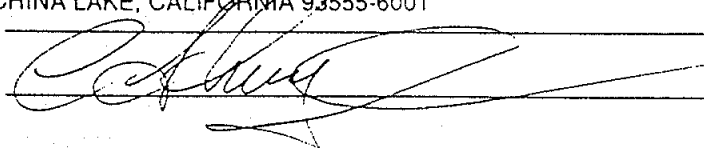
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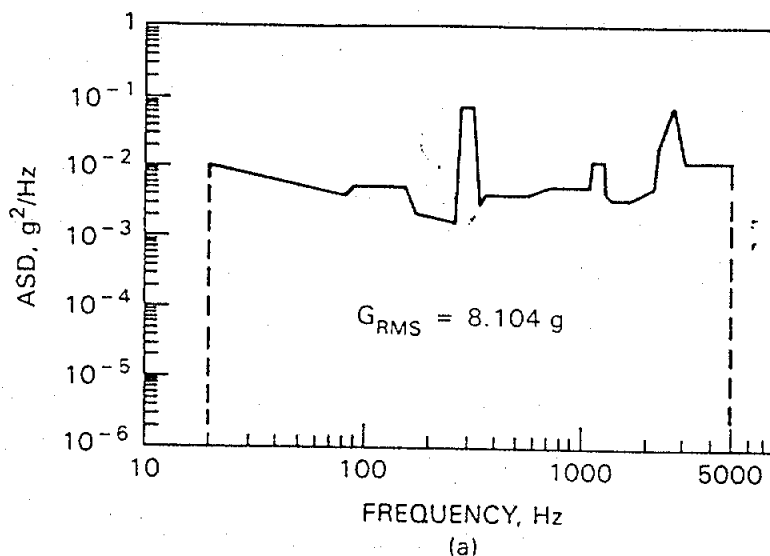
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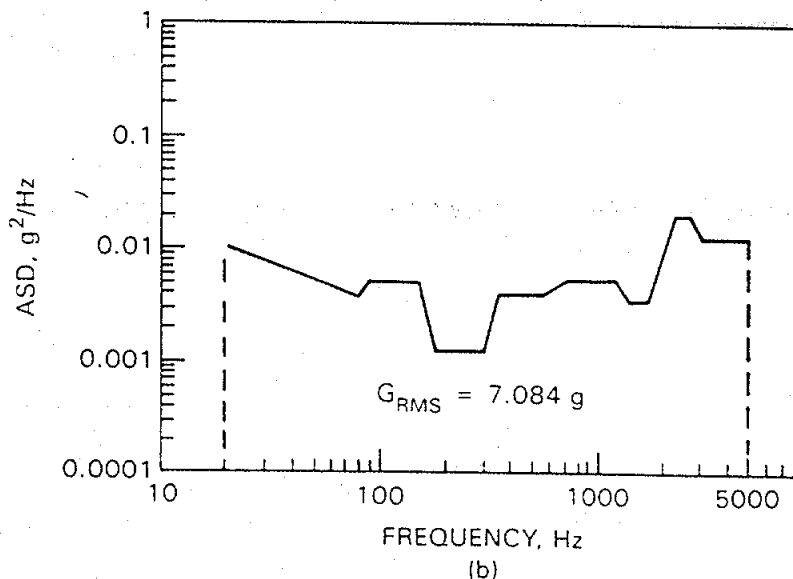
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| BREAKPOINTS | |
|-------------|---------------|
| FREQ. Hz | ASD, g^2/Hz |
| 20 | 0.01 |
| 85 | 0.0036 |
| 90 | 0.005 |
| 150 | 0.005 |
| 170 | 0.0022 |
| 260 | 0.0016 |
| 280 | 0.07 |
| 320 | 0.07 |
| 340 | 0.003 |
| 350 | 0.0039 |
| 550 | 0.0039 |
| 700 | 0.0051 |
| 1100 | 0.0051 |
| 1120 | 0.012 |
| 1280 | 0.012 |
| 1300 | 0.0041 |
| 1400 | 0.0034 |
| 1700 | 0.0034 |
| 2200 | 0.005 |
| 2300 | 0.02 |
| 2700 | 0.07 |
| 3000 | 0.012 |
| 5000 | 0.012 |

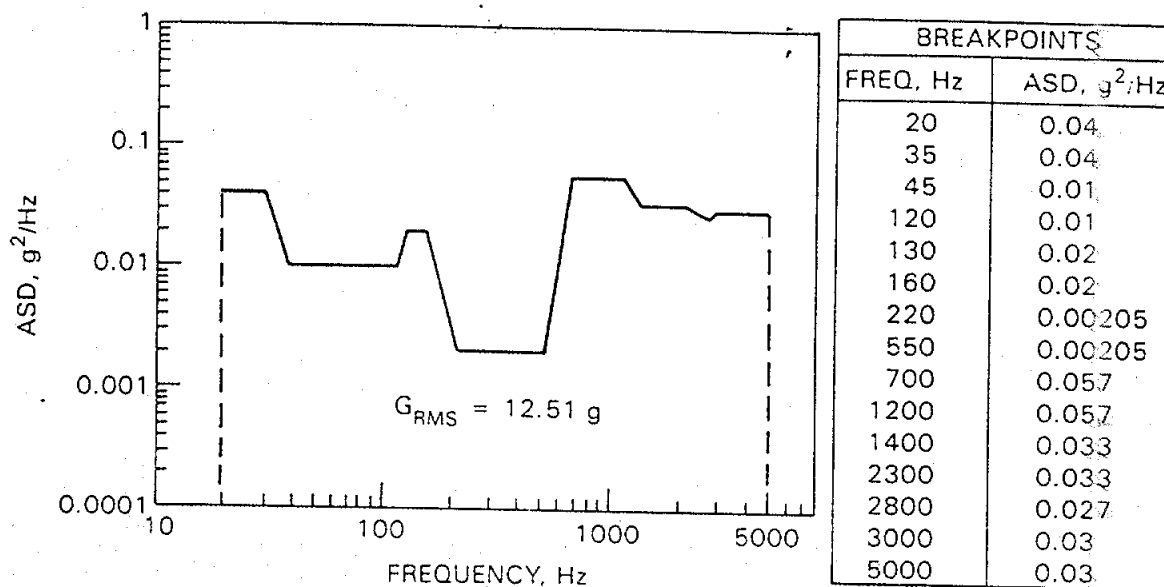


| BREAKPOINTS | |
|-------------|---------------|
| FREQ. Hz | ASD, g^2/Hz |
| 20 | 0.01 |
| 85 | 0.0036 |
| 90 | 0.005 |
| 150 | 0.005 |
| 180 | 0.0012 |
| 300 | 0.0012 |
| 350 | 0.0039 |
| 550 | 0.0039 |
| 700 | 0.0051 |
| 1200 | 0.0051 |
| 1400 | 0.0034 |
| 1700 | 0.0034 |
| 2300 | 0.02 |
| 2700 | 0.02 |
| 3000 | 0.012 |
| 5000 | 0.012 |

NOTE: APPLY SPECTRA SHOWN IN (a) FOR 10 ± 1 SECONDS FOLLOWED BY SPECTRA SHOWN IN (b) FOR 320 ± 3 SECONDS. TOLERANCE ON SPECTRA = ± 2 DEC BELS

FIGURE 8. Longitudinal Rectilinear Flight Vibration Spectrum. (a) Launch mode vibration. (b) sustained flight vibration.

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SCN-1
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NOTE: APPLY SPECTRA SHOWN ± 2 DECIBELS FOR 330 ± 3 SECONDS

FIGURE 9. Radial Rectilinear Flight Vibration Spectrum.

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| | | | | | | 6. SCN NO. 2 | |
| 7. SYSTEM DESIGNATION STANDARD MISSILE | | 8. RELATED ECP NO. 14282 (14282.1) | | 9. CONTRACT NO. | | 10. CONTRACTUAL ACTION N/A | |
| 11. CONFIGURATION ITEM NOMENCLATURE BOOSTER, MK 73 MOD 0 | | | | 12. EFFECTIVITY | | | |
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SCN-2

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OTHER PUBLICATIONS

Naval Sea Systems Command
(Code Ident 53711)

NAVSEA OD32123A

Plan for Certification of Standard
Missile Test Systems.

(Copies of specifications standards, drawings, and publications required by contractors in connection with specified procurement functions should be obtained from the contracting activity or as directed by the contracting officer).

2.2 Non-Government documents. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

AMERICAN SOCIETY FOR TESTING AND MATERIALS

ASTM-A 108

Steel Bars, Carbon, Cold-Finished,
Standard Quality.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

CODE OF FEDERAL REGULATIONS

49 CFR 171-179

Transportation.

(Application for copies should be addressed to the Superintendent of Documents, Government Printing Office, Washington, DC 20402.)

3. REQUIREMENTS.

3.1 Item definition. The booster initiates the warhead of a guided missile and is composed of an inert housing assembly and an explosive pellet containing 110 grams of CH-6. The booster consists of the following major components (see Figure 1):

| <u>Component</u> | <u>Drawing number</u> |
|-----------------------------|-----------------------|
| Booster Sleeve | 6503334 |
| Housing Closure | 704AS2303 |
| Pellet | 704AS2302 |
| Pellet Housing | 6503336 |
| Retaining ring | 704AS2305 |
| Identification Plate | 6503333 |
| Vibration Isolator Assembly | 6503335 |

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3.1.1 Government furnished property list. When specified in the contract or purchase order, the contracting activity will furnish the contractor with the following in the quantity specified (see 6.2.1):

| <u>Item</u> | <u>Quantity</u> |
|---|---|
| RDX Composition CH-6 in accordance with MIL-C-21723 | Approximately 120 percent of the net production requirement. |
| Explosive Lead, MARK 8 MOD 0 | Approximately 120 percent of the total test quantity requirement. |
| Explosive Lead, MARK 12 MOD 2 | Approximately 120 percent of the total test quantity requirement. |
| Exploding Bridgewire Detonator | Approximately 120 percent of the total test quantity requirement. |

3.2 Characteristics.

3.2.1 Performance.

3.2.1.1 Function. The booster shall function as required when initiated by an explosive train consisting of an Exploding Bridgewire Detonator, a MK 12 MOD 2 Explosive Lead, and a MK 8 MOD 0 Explosive Lead.

3.2.1.2 Function and output. The acceptability criteria $(\bar{X} - L)/S$ shall be as defined by MIL-STD-414, Single Specification Limit, Form 1, variability unknown, Standard Deviation Method. The lower limit, L, to be used in this computation shall be .150 inch. If $(\bar{X} - L)/S$ is equal to or greater than 2.00, the booster sample shall be considered as having passed this test. If $(\bar{X} - L)/S$ is less than 2.00, the sample shall be considered a failure.

3.2.2 Mechanical.

3.2.2.1 Booster assembly. The booster assembly shall be in accordance with Drawing 6503332 (see FED-STD-H28).

3.2.2.2 Booster sleeve. The booster sleeve shall be in accordance with Drawing 6503334.

3.2.2.3 Housing closure. The housing closure shall be in accordance with Drawing 704AS2303.

3.2.2.4 Pellet. The pellet shall be in accordance with Drawing 704AS2302

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3.2.2.5 Pellet housing. The housing cup shall be in accordance with Drawing 6503336.

3.2.2.6 Retaining ring. The retaining ring shall be in accordance with Drawing 704AS2305.

3.2.2.7 Identification plate. The identification plate shall be in accordance with Drawing 6503333.

3.2.2.8 Vibration Isolator Assembly. The vibration isolator assembly shall be in accordance with Drawing 6503335.

3.2.3 Radiographic inspection. The booster shall be free from defects such as cracks, voids, fissures, or low density areas when radiographed in accordance with 4.4.3.

3.2.4 Environmental. The booster shall not be damaged, nor shall safety or subsequent performance be degraded, by exposure to any natural combination of service use environments. These shall include, but shall not be limited to, the following environments:

3.2.4.1 Transportation vibration-temperature (nondestructive). The booster shall meet the requirements of MIL-STD-331, Test 124, Procedure I, except the test durations and temperatures shall be as indicated in 4.4.4.1(b) and (c), and shall be safe to handle and shall function with the proper output after the test.

3.2.4.2 Temperature and humidity (nondestructive). The booster shall meet the requirements of MIL-STD-331, Test 105.1, either method, 14-day period, and shall be safe to handle and shall function with the proper output after the test.

3.2.4.3 Missile flight vibration (nondestructive). The booster shall meet the requirements of MIL-STD-810, Method 514.3, Equipment Category 5, Procedure I, except the vibration spectrums shall be as indicated in Figures 7 and 8, and shall be safe to handle and shall function with the proper output after the test.

3.2.4.4 Twelve-meter drop (destructive). When installed in a simulated warhead, the booster shall meet the requirements of MIL-STD-331, Test 103.2, Procedure 1, and shall be safe to handle and dispose of after the test.

3.2.4.5 Jolt (destructive). The booster shall meet the requirements of MIL-STD-331, Test 101.3, Procedure I, and shall be safe to handle and dispose of after the test.

3.3 Design and construction.

3.3.1 Production drawings. The booster shall be manufactured and assembled in accordance with the drawings and documents listed on DL 6503332 and as specified herein.

5/27/91

criteria $(\bar{X} - L)/S$ as defined by MIL-STD-414, Single Specification Limit, Form 1, Variability Unknown, Standard Deviation Method. The lower limit, L, to be used in this computation shall be .150 inch. The lot shall have met this requirement if the quantity $(\bar{X} - L)/S$ is equal to or greater than 2.00. If the quantity is less than 2.00, the lot shall be rejected.

4.4.1.1.3.1 Dent measurement procedure. Before measurement, remove all foreign material from the dent. Measurements shall be taken using the dial indicator height gage (or equivalent) and probe of 4.4.1.1.1(f). Zero the indicator with the point of the probe in the deepest part of the dent. Take two readings at points on opposite sides of the dent near the outer edges of the dent block. Average the last two readings to obtain the depth of the dent (see Figure 7).

4.4.2 Mechanical. All major components and subassemblies shall be inspected for conformance to the requirements of the drawings and documents listed on DL 6503332.

4.4.2.1 Booster assembly. The booster assembly shall meet the requirements of 3.2.2.1.

4.4.2.2 Booster sleeve. The booster sleeve shall meet the requirements of 3.2.2.2.

4.4.2.3 Housing closure. The housing closure shall meet the requirements of 3.2.2.3.

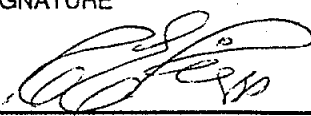
4.4.2.4 Pellet. The pellet shall meet the requirements of 3.2.2.4.

4.4.2.5 Housing cup. The housing cup shall meet the requirements of 3.2.2.5.

4.4.2.6 Retaining ring. The retaining ring shall meet the requirements of 3.2.2.6.

4.4.2.7 Identification plate. The identification plate shall meet the requirements of 3.2.2.7.

4.4.3 Radiographic Inspection. The booster shall be radiographically inspected along the X, Y, and Z axes (see Figure 1). For the X axis, the radiographic film density shall be measured within an area located within 0.75 inches from the center of the device. For the Y and Z axes, the procedure shall be in accordance with MIL-STD-453. Each radiograph shall be inspected for any evidence of cracks, voids, fissures, or low density areas within the explosive pellet. To be acceptable, the booster must meet the requirements of 3.2.3.

| SPECIFICATION CHANGE NOTICE (See MIL-STD-480 for instructions) | | | | DATE (YYMMDD) 92/07/15 | | FORM APPROVED OMB NO. 0704-0188 | |
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| | | | | | | 4. SPEC. NO. WS-32616 | |
| 5. CAGE CODE 53711 | | 6. SCN NO. 3 | | | | | |
| 7. SYSTEM DESIGNATION STANDARD MISSILE | | 8. RELATED ECP NO. 16203 (16203.1) | | 9. CONTRACT NO. | | 10. CONTRACTUAL ACTION N/A | |
| 11. CONFIGURATION ITEM NOMENCLATURE BOOSTER, MK 73 MOD 0 | | | | 12. EFFECTIVITY | | | |
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NAVAL SEA SYSTEMS COMMAND
DEPARTMENT OF THE NAVY
WASHINGTON, D. C. 20362-5101

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Military

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|---------------|---|
| MIL-STD-129 | Marking for Shipment and Storage. |
| MIL-STD-331 | Fuze and Fuze Components, Environmental and Performance Tests for. |
| MIL-STD-414 | Sampling Procedures and Tables for Inspection by Variables for Percent Defective. |
| MIL-STD-453 | Inspection, Radiographic. |
| MIL-STD-810 | Environmental Test Methods and Engineering Guide Lines. |
| MIL-STD-831 | Test Reports, Preparation of. |
| MIL-STD-45662 | Calibration Systems Requirements. |

DRAWINGS

Naval Air Systems Command
(Code Ident 30003)

| | |
|------------|---------------------------------|
| LM 1635922 | Lead, Explosive, MARK 8 MOD 0. |
| LM 3300320 | Lead, Explosive, MARK 12 MOD 2. |

Naval Sea Systems Command
(Code Ident 53711)

| | |
|------------|-----------------------------|
| DL 6503332 | Booster, Fuze, MK 73 MOD 0. |
| SA 2875551 | Vibration Test Adapter. |
| SA 6503340 | Block, Test Initiation. |

OTHER PUBLICATIONS

Naval Sea Systems Command
(Code Ident 53711)

NAVSEA OD32123A

Plan for Certification of Standard
Missile Test Systems.

(Copies of specifications standards, drawings, and publications required by contractors in connection with specified procurement functions should be obtained from the contracting activity or as directed by the contracting officer).

2.2 Non-Government documents. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

AMERICAN SOCIETY FOR TESTING AND MATERIALS

ASTM-A 108

Steel Bars, Carbon, Cold-Finished,
Standard Quality.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

CODE OF FEDERAL REGULATIONS

49 CFR 171-179

Transportation.

(Application for copies should be addressed to the Superintendent of Documents, Government Printing Office, Washington, DC 20402.)

3. REQUIREMENTS.

3.1 Item definition. The booster initiates the warhead of a guided missile and is composed of an inert housing assembly and an explosive pellet containing 110 grams of CH-6. The booster consists of the following major components (see Figure 1):

| <u>Component</u> | <u>Drawing number</u> |
|-----------------------------|-----------------------|
| Booster Sleeve | 6503334 |
| Housing Closure | 6503345 |
| Pellet | 6503344 |
| Pellet Housing | 6503336 |
| Retaining ring | 6503347 |
| Identification Plate | 6503333 |
| Vibration Isolator Assembly | 6503335 |

3.1.1 Government furnished property list. When specified in the contract or purchase order, the contracting activity will furnish the contractor with the following in the quantity specified (see 6.2.1):

| <u>Item</u> | <u>Quantity</u> |
|---|---|
| RDX Composition CH-6 in accordance with MIL-C-21723 | Approximately 120 percent of the net production requirement. |
| Explosive Lead, MARK 8 MOD 0 | Approximately 120 percent of the total test quantity requirement. |
| Explosive Lead, MARK 12 MOD 2 | Approximately 120 percent of the total test quantity requirement. |
| Exploding Bridgewire Detonator | Approximately 120 percent of the total test quantity requirement. |

3.2 Characteristics.

3.2.1 Performance.

3.2.1.1 Function. The booster shall function as required when initiated by an explosive train consisting of an Exploding Bridgewire Detonator, a MK 12 MOD 2 Explosive Lead, and a MK 8 MOD 0 Explosive Lead.

3.2.1.2 Function and output. The acceptability criteria $(\bar{X} - L)/S$ shall be as defined by MIL-STD-414, Single Specification Limit, Form 1, variability unknown, Standard Deviation Method. The lower limit, L , to be used in this computation shall be .150 inch. If $(\bar{X} - L)/S$ is equal to or greater than 2.00, the booster sample shall be considered as having passed this test. If $(\bar{X} - L)/S$ is less than 2.00, the sample shall be considered a failure.

3.2.2 Mechanical.

3.2.2.1 Booster assembly. The booster assembly shall be in accordance with Drawing 6503332.

3.2.2.2 Booster sleeve. The booster sleeve shall be in accordance with Drawing 6503334.

3.2.2.3 Housing closure. The housing closure shall be in accordance with Drawing 6503345.

3.2.2.4 Pellet. The pellet shall be in accordance with Drawing 6503344.

3.2.2.5 Pellet housing. The housing cup shall be in accordance with Drawing 6503336.

3.2.2.6 Retaining ring. The retaining ring shall be in accordance with Drawing 6503346.

3.2.2.7 Identification plate. The identification plate shall be in accordance with Drawing 6503333.

3.2.2.8 Vibration Isolator Assembly. The vibration isolator assembly shall be in accordance with Drawing 6503335.

3.2.2.9 Frame vibration isolator. The frame vibration isolator shall be in accordance with Drawing 6503339.

3.2.2.10 Ring vibration isolator. The ring vibration isolator shall be in accordance with Drawing 6503340.

3.2.3 Radiographic inspection. The booster shall be free from defects such as cracks, voids, fissures, or low density areas when radiographed in accordance with 4.4.3.

3.2.4 Environmental. The booster shall not be damaged, nor shall safety or subsequent performance be degraded, by exposure to any natural combination of service use environments. These shall include, but shall not be limited to, the following environments:

3.2.4.1 Transportation vibration-temperature (nondestructive). The booster shall meet the requirements of MIL-STD-331, Test 124, Procedure I, except the test durations and temperatures shall be as indicated in 4.4.4.1(b) and (c), and shall be safe to handle and shall function with the proper output after the test.

3.2.4.2 Temperature and humidity (nondestructive). The booster shall meet the requirements of MIL-STD-331, Test 105.1, either method, 14-day period, and shall be safe to handle and shall function with the proper output after the test.

3.2.4.3 Missile flight vibration (nondestructive). The booster shall meet the requirements of MIL-STD-810, Method 514.3, Equipment Category 5, Procedure I, except the vibration spectrums shall be as indicated in Figures 7 and 8, and shall be safe to handle and shall function with the proper output after the test.

3.2.4.4 Twelve-meter drop (destructive). When installed in a simulated warhead, the booster shall meet the requirements of MIL-STD-331, Test 103.2, Procedure 1, and shall be safe to handle and dispose of after the test.

3.2.4.5 Jolt (destructive). The booster shall meet the requirements of MIL-STD-331, Test 101.3, Procedure I, and shall be safe to handle and dispose of after the test.

3.3 Design and construction.

3.3.1 Production drawings. The booster shall be manufactured and assembled in accordance with the drawings and documents listed on DL 6503332 and as specified herein.

3.3.1.1 Mass and center of gravity. The booster/isolator shall have the following mass and center of gravity (CG).

- a. The mass shall be 0.547 ± 0.1 pound.
- b. The CG shall be 0.925 ± 0.125 inch when measured from the forward end of the housing.

criteria ($\bar{X} - L$)/S as defined by MIL-STD-414, Single Specification Limit, Form 1, Variability Unknown, Standard Deviation Method. The lower limit, L, to be used in this computation shall be .150 inch. The lot shall have met this requirement if the quantity ($\bar{X} - L$)/S is equal to or greater than 2.00. If the quantity is less than 2.00, the lot shall be rejected.

4.4.1.1.3.1 Dent measurement procedure. Before measurement, remove all foreign material from the dent. Measurements shall be taken using the dial indicator height gage (or equivalent) and probe of 4.4.1.1.1(f). Zero the indicator with the point of the probe in the deepest part of the dent. Take two readings at points on opposite sides of the dent near the outer edges of the dent block. Average the last two readings to obtain the depth of the dent (see Figure 7).

4.4.2 Mechanical. All major components and subassemblies shall be inspected for conformance to the requirements of the drawings and documents listed on DL 6503332.

4.4.2.1 Booster assembly. The booster assembly shall meet the requirements of 3.2.2.1.

4.4.2.2 Booster sleeve. The booster sleeve shall meet the requirements of 3.2.2.2.

4.4.2.3 Housing closure. The housing closure shall meet the requirements of 3.2.2.3.

4.4.2.4 Pellet. The pellet shall meet the requirements of 3.2.2.4.

4.4.2.5 Housing cup. The housing cup shall meet the requirements of 3.2.2.5.

4.4.2.6 Retaining ring. The retaining ring shall meet the requirements of 3.2.2.6.

4.4.2.7 Identification plate. The identification plate shall meet the requirements of 3.2.2.7.

4.4.2.8 Vibration isolator assembly. The vibration isolator assembly shall meet the requirements of 3.2.2.8.

4.4.2.9 Frame vibration isolator. The frame vibration isolator shall meet the requirements of 3.2.2.9.

4.4.2.10 Ring vibration isolator. The ring vibration isolator shall meet the requirements of 3.2.2.10.

4.4.3 Radiographic Inspection. The booster shall be radiographically inspected along the X, Y, and Z axes (see Figure 1). For the X axis, the radiographic film density shall be measured within an area located within 0.75 inches from the center of the device. For the Y and Z axes, the procedure shall be in accordance with MIL-STD-453. Each radiograph shall be inspected for any evidence of cracks, voids, fissures, or low density areas within the explosive pellet. To be acceptable, the booster must meet the requirements of 3.2.3.

WS-32616

SCN-3

930114

FIGURE LOCATED ON VAUGHN'S UNCLASSIFIED DESKTOP IN THE SPECS
DRAWER IN WS-32616 (FIG) BOOK.

Figure 1. MK 73 MOD 0 Fuze Booster. (sideways)

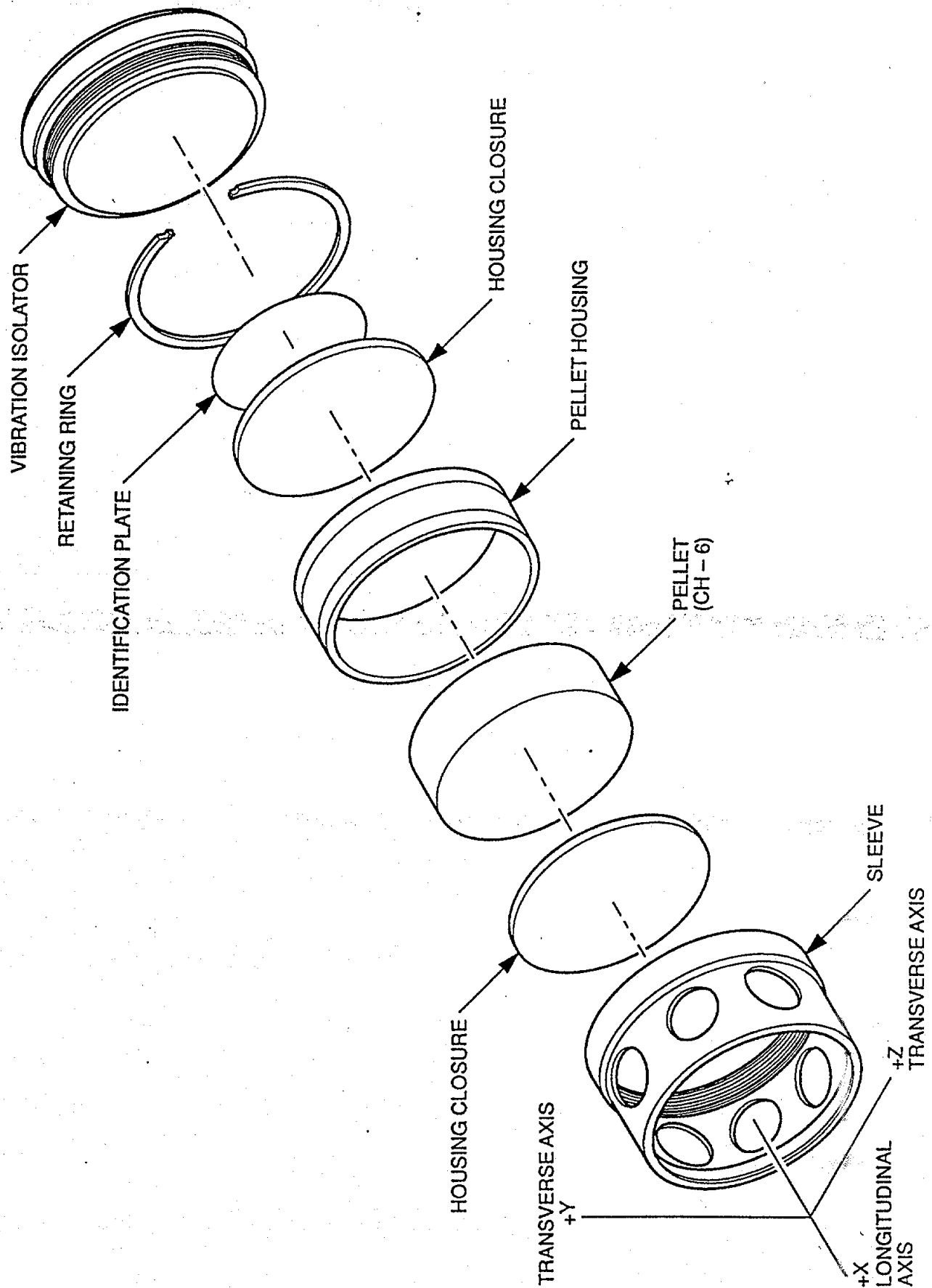


Figure 1. MK 73 MOD 0 Fuze Booster.

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| 11. CONFIGURATION ITEM NOMENCLATURE CRITICAL ITEM PRODUCT FABRICATION SPECIFICATION FOR BOOSTER, FUZE, MK 73 MOD 0 | | 12. EFFECTIVITY N/A | |
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| 2 | 14282 | 3, 4, 5 & 11 | 91/06/14 | X | | 91/06/27 |
| 3 | 16203 | 2, 3, 4, 5, 11 & 16 | 92/07/15 | X | | 93/01/14 |
| 3 | 16203 | 5a & 11a | 92/07/15 | | X | 93/01/14 |
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WS-32616
SCN 4

3.1.1 Government furnished property list. When specified in the contractor or purchase order, the contracting activity will furnish the contractor with the following in the quantity specified (see 6.2.1):

| <u>Item</u> | <u>Quantity</u> |
|---|---|
| RDX Composition CH-6 in accordance with MIL-C-21723 | Approximately 120 percent of the net production requirement. |
| Explosive Lead, MARK 8 MOD 0 | Approximately 120 percent of the total test quantity requirement. |
| Explosive Lead, MARK 12 MOD 2 | Approximately 120 percent of the total test quantity requirement. |
| Exploding Bridgewire Detonator | Approximately 120 percent of the total test quantity requirement. |

3.2 Characteristics

3.2.1 Performance

3.2.1.1 Function The booster shall function as required when initiated by an explosive train consisting of an Exploding Bridgewire Detonator, a MK 12 MOD 2 Explosive Lead, and MK 8 MOD 0 Explosive.

3.2.1.2 Function and output The acceptability criteria $(\bar{X}-L)/S$ shall be as defined by MIL-STD-414, Single Specification Limit, Form 1 variability unknown, Standard Deviation Method. The lower limit, L, to be used in this computation shall be .190 inch. If $(\bar{X}-L)/S$ is equal to or greater than 2.00, the booster sample shall be considered as having passed this test. If $(\bar{X}-L)/S$ is less than 2.00, the sample shall be considered a failure.

3.2.2 Mechanical

3.2.2.1 Booster assembly The booster assembly shall be in accordance with Drawing 6503332.

3.2.2.2 Booster sleeve The booster sleeve shall be in accordance with Drawing 6503334.

3.2.2.3 Housing closure The housing closure shall be in accordance with Drawing 6503345.

3.2.2.4 Pellet The pellet shall be in accordance with Drawing 6503344.

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SCN 4

criteria $(\bar{X}-L)/S$ as defined by MIL-STD-414, Single Specification Limit, Form 1, Variability Unknown, Standard Deviation Method. The lower limit, L , to be used in this computation shall be .190 inch. The lot shall have met this requirement if the quantity $(\bar{X}-L)/S$ is equal to or greater than 2.00. If the quantity is less than 2.00, the lot shall be rejected.

4.4.1.1.3.1 Dent measurement procedure. Before measurement, remove all foreign material from the dent. Measurements shall be taken using the dial indicator height gage (or equivalent) and probe of 4.4.1.1.1(f). Zero the indicator with the point of the probe in the deepest part of the dent. Take two reading at points on opposite sides of the dent near the outer edges of the dent block. Average the last two readings to obtain the depth of the dent (see Figure 7).

4.4.2 Mechanical. All major components and subassemblies shall be inspected for conformance to the requirements of the drawings and documents listed on DL 6503332.

4.4.2.1 Booster assembly. The booster assembly shall meet the requirements of 3.2.2.1.

4.4.2.2 Booster sleeve. The booster sleeve shall meet the requirements of 3.2.2.2.

4.4.2.3 Housing closure. The housing closure shall meet the requirements of 3.2.2.3.

4.4.2.4 Pellet. The pellet shall meet the requirements of 3.2.2.4.

4.4.2.5 Housing cup. The housing cup shall meet the requirements of 3.2.2.5.

4.4.2.6 Retaining ring. The retaining ring shall meet the requirements of 3.2.2.6.

4.4.2.7 Identification plate. The identification plate shall meet the requirements of 3.2.2.7.

4.4.2.8 Vibration isolator assembly. The vibration isolator assembly shall meet the requirements of 3.2.2.8.

4.4.2.9 Frame vibration isolator. The frame isolator shall meet the requirements of 3.2.2.9.

4.4.2.10 Ring vibration isolator. The ring vibration isolator shall meet the requirements of 3.2.2.10.

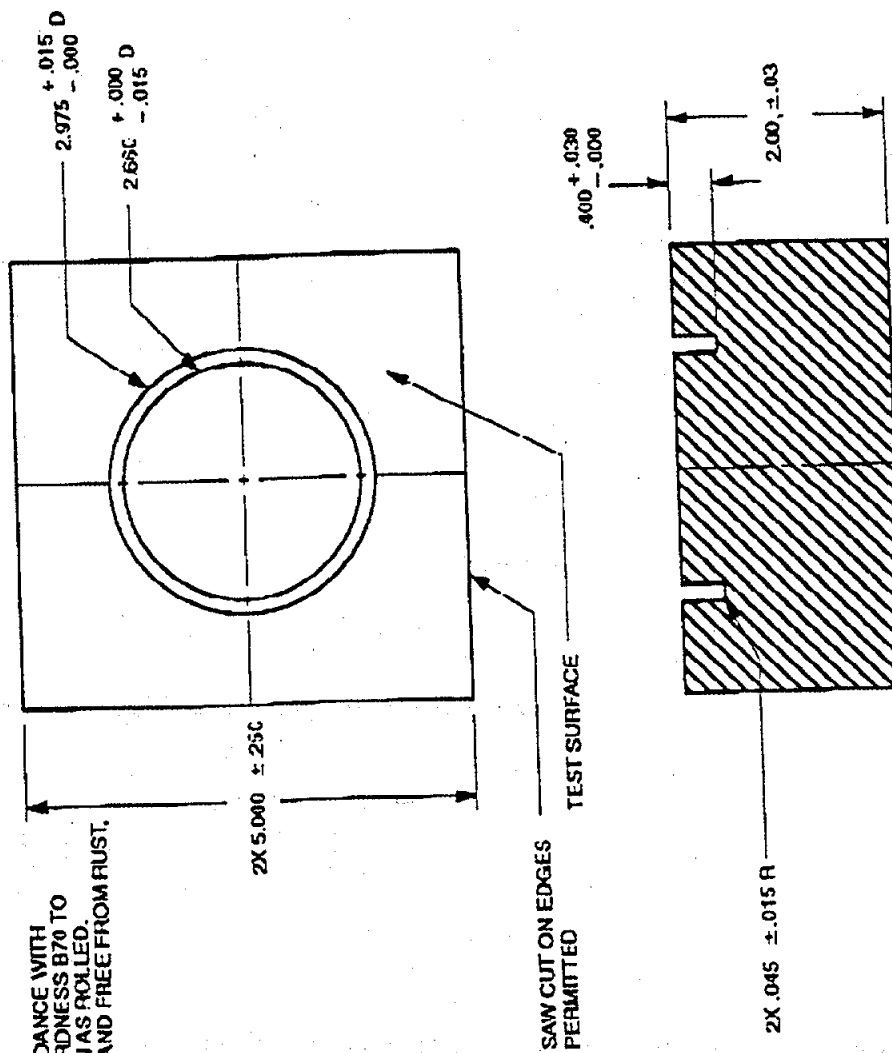
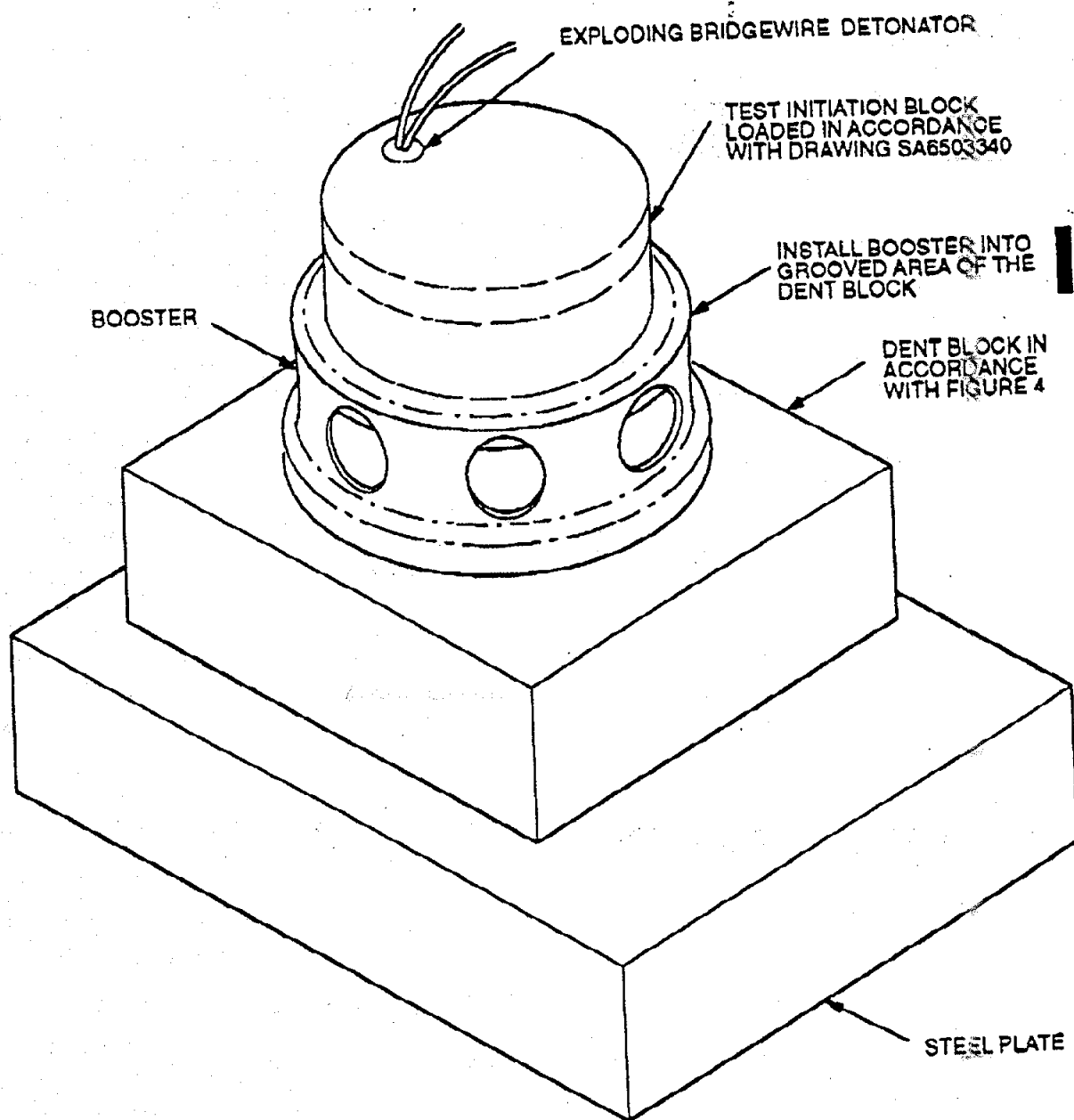
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Figure 4 Dent Block.

WS-30616

SCN-4

FIGURE 6. Function and Output Test Setup.

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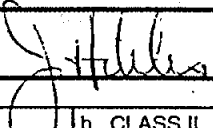

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| a. TYPED NAME (First, Middle Initial, Last) Naval Air Warfare Center, Weapons Division | | | | | | 6. JUST. CODE | | 7. PRIORITY U | |
| 8. ECP DESIGNATION | | | | | | 9. BASELINE AFFECTED | | | |
| a. MODEL/TYPE MK 73 MOD 0 | b. CAGE CODE 12934 | c. SYSTEM DESIGNATION STANDARD Missile | | | | FUNCTIONAL <input checked="" type="checkbox"/> PRODUCT | | ALLOTTED | |
| d. ECP NO. 16218 | | | | e. TYPE F | f. REV | 10. OTHER SYS./CONFIG. ITEMS AFFECTED | | | |
| | | | | | | YES <input checked="" type="checkbox"/> NO | | | |
| 11. SPECIFICATIONS AFFECTED | | | | | | 12. DRAWINGS AFFECTED | | | |
| | CAGE Code | Specification/Document No. | Rev. | SCN | CAGE Code | Number | Rev | NOR | |
| a. SYSTEM | 12934 | WS-32616 | - | 16218.1 | | | | | |
| b. DEVELOPMENT | | | | | | | | | |
| c. PRODUCT | | | | | | | | | |
| 13. TITLE OF CHANGE Flight Vibration Profile Changes | | | | | | | | | |
| 14. CONTRACT NO. AND LINE ITEM N/A | | | | | 15. PROCURING CONTRACTING OFFICER | | | | |
| | | | | | a. NAME (First, Middle Initial, Last) N/A | | | | |
| | | | | | b. CODE c. TELEPHONE NO. | | | | |
| 16. CONFIGURATION ITEM NOMENCLATURE Booster, Fuze Assembly Mk 73 Mod 0 | | | | | | | | 17. IN PRODUCTION <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | |
| 18. ALL LOWER LEVEL ITEMS AFFECTED | | | | | | | | | |
| a. NOMENCLATURE Booster, Fuze Assembly Mk 73 Mod 0 | | | | | b. PART NO. 6503332 | | c. NSN | | |
| 19. DESCRIPTION OF CHANGE Incorporate new composite profiles that include Block IIIA, IIIB, IV and IVA for Flight Vibration levels | | | | | | | | | |
| 20. NEED FOR CHANGE To incorporate the new Flight Vibration levels in the specification for the purpose of allowing the use of Mk 73 Boosters in their current configuration for Block IVA missiles | | | | | | | | | |
| 21. PRODUCTION EFFECTIVITY BY SERIAL NUMBER N/A | | | | | 22. EFFECT ON PRODUCTION DELIVERY SCHEDULE N/A | | | | |
| 23. RETROFIT | | | | | | | | | |
| a. RECOMMENDED ITEM EFFECTIVITY N/A | | | | | b. SHIP/VEHICLE CLASS AFFECTED N/A | | | | |
| c. ESTIMATED KIT DELIVERY SCHEDULE N/A | | | | | d. LOCATIONS OR SHIP/VEHICLE NUMBERS AFFECTED N/A | | | | |
| 24. ESTIMATED COSTS/SAVINGS UNDER CONTRACT N/A | | | | | 25. ESTIMATED NET TOTAL COSTS/SAVINGS N/A | | | | |
| 26. SUBMITTING ACTIVITY | | | | | b. TITLE | | | | |
| a. AUTHORIZED SIGNATURE  | | | | | Production Manager | | | | |
| 27. APPROVAL/DISAPPROVAL | | | | | | | | | |
| a. CLASS I | | b. CLASS II | | | c. CLASS II | | | | |
| <input type="checkbox"/> APPROVAL RECOMMENDED | <input type="checkbox"/> DISAPPROVAL RECOMMENDED | <input type="checkbox"/> APPROVED | <input type="checkbox"/> DISAPPROVED | <input type="checkbox"/> CONCUR IN CLASSIFICATION OF CHANGE | <input type="checkbox"/> DO NOT CONCUR IN CLASSIFICATION OF CHANGE | | | | |
| d. GOVERNMENT ACTIVITY Naval Air Warfare Center, Weapons Division China Lake, CA 93555-6100 | | | | e. SIGNATURE | | | f. DATE SIGNED (YYMMDD) | | |
| g. APPROVAL <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED | | | | h. GOVERNMENT ACTIVITY Naval Air Warfare Center, Weapons Div China Lake, CA 93555-6100 | | | i. SIGNATURE  | | |
| | | | | | | | j. DATE SIGNED (YYMMDD) 4-20-99 | | |

DD FORM 1692, APR 92

Previous editions are obsolete.

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NOTICE OF REVISION (NOR)

THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.

1. DATE
(YYMMDD)
98/11/24Form Approved
OMB No. 0704-0188

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2. PROCURING ACTIVITY
NO.

3. DODAAC

6. NOR NO.
16218.18. DOCUMENT NO.
WS-3261611. ECP NO.
16218

4. ORIGINATOR

a. TYPED NAME (Activity)

Naval Air Warfare Center
Weapons Division

b. ADDRESS (Location)

Code 472G80D
1 Administration Circle
China Lake, CA 93555-60015. CAGE CODE
129347. CAGE CODE
53711

9. TITLE OF DOCUMENT

Critical Item Product Fabrication Specification
for Booster, Fuze, MK 73 Mod 0

10. REVISION LETTER

a. CURRENT

SCN 4

b. NEW

SCN 5

12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES

Booster, Fuze, MK 73 Mod 0

13. DESCRIPTION OF REVISION

- Page 2, Military Specifications, change "MIL-STD-810" to "MIL-STD-810D"
- Page 5, Paragraph 3.2.4.3, change

From:

"Missile flight...indicated in Figures 7 and 8, and shall...after the test."

To:

"Missile flight...indicated in Figures 8 and 9, and shall...after the test."

14. THIS SECTION FOR GOVERNMENT USE ONLY

a. (X one)

X

- (1) Existing document supplemented by this NOR may be used in manufacture.
- (2) Revised document must be received before manufacturer may incorporate this change.
- (3) Custodian of master document shall make above revision and furnish revised document.

b. ACTIVITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT

NAWCWPNDIV, China Lake, CA 93555-6001

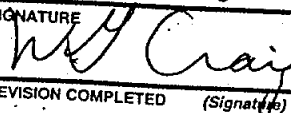
c. TYPED NAME (First, Middle Initial, Last)

Glenn Craig

d. TITLE

STANDARD Missile Project Manager

e. SIGNATURE

f. DATE SIGNED
(YYMMDD)

990420

15.a. ACTIVITY ACCOMPLISHING REVISION

NAWCWPNDIV, China Lake, CA 93555-6001

b. REVISION COMPLETED (Signature)

c. DATE SIGNED
(YYMMDD)

DD Form 1695, APR 92

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DD Form 1695, APR 92

(MIL-STD-973/931025)

NOTICE OF REVISION (NOR) CONTINUATION SHEET

NAWCWPNDIV (MIL-STD-973/931025)

DOCUMENT NO.

WS-32616

NOR NO.

16218.1

SHEET

2 OF 6

3. Page 13, Paragraph 4.4.4.3(d), change

From:

"Vibrate the boosters for two hours along the X-axis (see Figure 1) in accordance with the spectrum specified on Figure 8)."

To:

"Vibrate the boosters 10 seconds for spectrum (a), 320 seconds for spectrum (b) along the X-axis (see Figure 1) in accordance with the spectrum specified on (Figure 8)."

4. Page 13, Paragraph 4.4.4.3(e), change

From:

"Vibrate the boosters for two hours along the Y-axis (see Figure 1) in accordance with the spectrum specified on Figure 9)."

To:

"Vibrate the boosters for 330 seconds along the Y-axis (see Figure 1) in accordance with the spectrum specified on (Figure 9)."

5. Page 13, Paragraph 4.4.4.3(f), change

From:

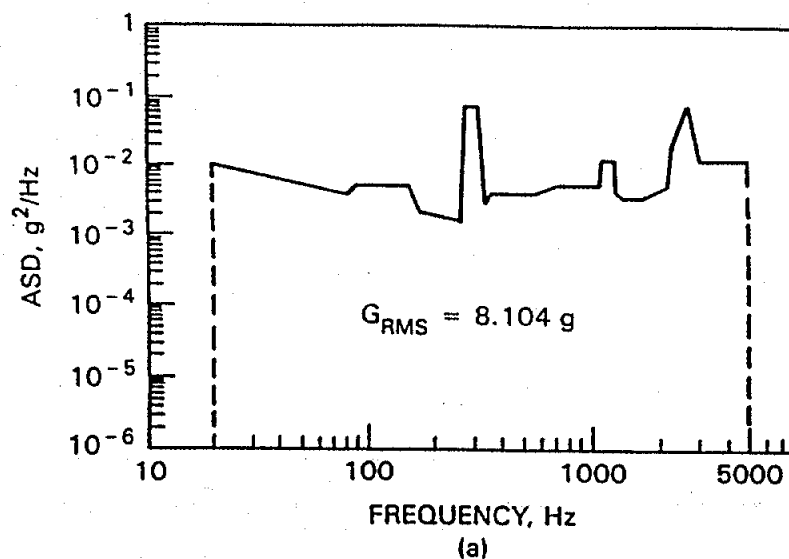
"Vibrate the boosters for two hours along the Z-axis (see Figure 1) in accordance with the spectrum specified on Figure 9."

To:

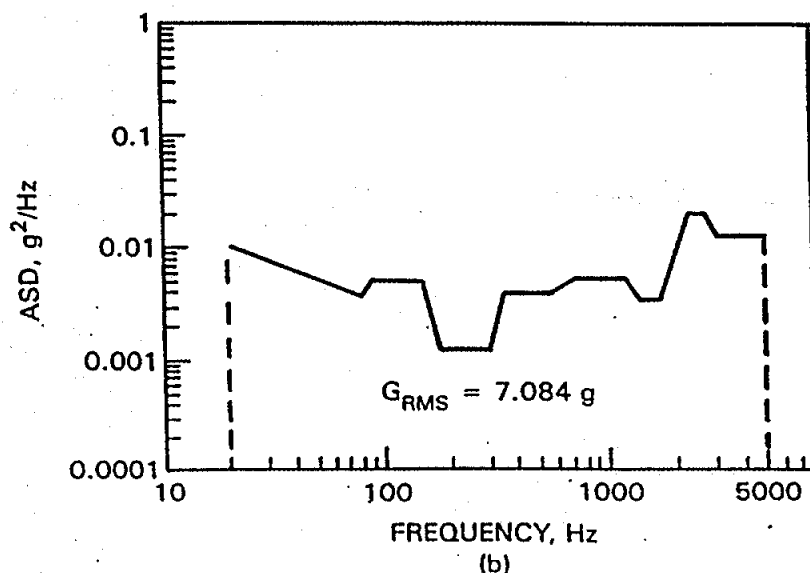
"Vibrate the boosters for 330 seconds along the Z-axis (see Figure 1) in accordance with the spectrum specified on (Figure 9)."

6. Page 23, Figure 8, change

From:



| BREAKPOINTS | |
|-------------|-------------------------|
| FREQ, Hz | ASD, g ² /Hz |
| 20 | 0.01 |
| 85 | 0.0036 |
| 90 | 0.005 |
| 150 | 0.005 |
| 170 | 0.0022 |
| 260 | 0.0016 |
| 280 | 0.07 |
| 320 | 0.07 |
| 340 | 0.003 |
| 350 | 0.0039 |
| 550 | 0.0039 |
| 700 | 0.0051 |
| 1100 | 0.0051 |
| 1120 | 0.012 |
| 1280 | 0.012 |
| 1300 | 0.0041 |
| 1400 | 0.0034 |
| 1700 | 0.0034 |
| 2200 | 0.005 |
| 2300 | 0.02 |
| 2700 | 0.07 |
| 3000 | 0.012 |
| 5000 | 0.012 |



| BREAKPOINTS | |
|-------------|-------------------------|
| FREQ, Hz | ASD, g ² /Hz |
| 20 | 0.01 |
| 85 | 0.0036 |
| 90 | 0.005 |
| 150 | 0.005 |
| 180 | 0.0012 |
| 300 | 0.0012 |
| 350 | 0.0039 |
| 550 | 0.0039 |
| 700 | 0.0051 |
| 1200 | 0.0051 |
| 1400 | 0.0034 |
| 1700 | 0.0034 |
| 2300 | 0.02 |
| 2700 | 0.02 |
| 3000 | 0.012 |
| 5000 | 0.012 |

NOTE: APPLY SPECTRA SHOWN IN (a) FOR 10 ± 1 SECONDS FOLLOWED BY SPECTRA SHOWN IN (b) FOR 320 ± 3 SECONDS. TOLERANCE ON SPECTRA = ± 2 DECIBELS

FIGURE 8. Longitudinal Rectilinear Flight Vibration Spectrum. (a) Launch mode vibration. (b) sustained flight vibration.

NOTICE OF REVISION (NOR) CONTINUATION SHEET

NAWCWPNDIV (MIL-STD-973/931025)

DOCUMENT NO.

WS-32616

NOR NO.

16218.1

SHEET

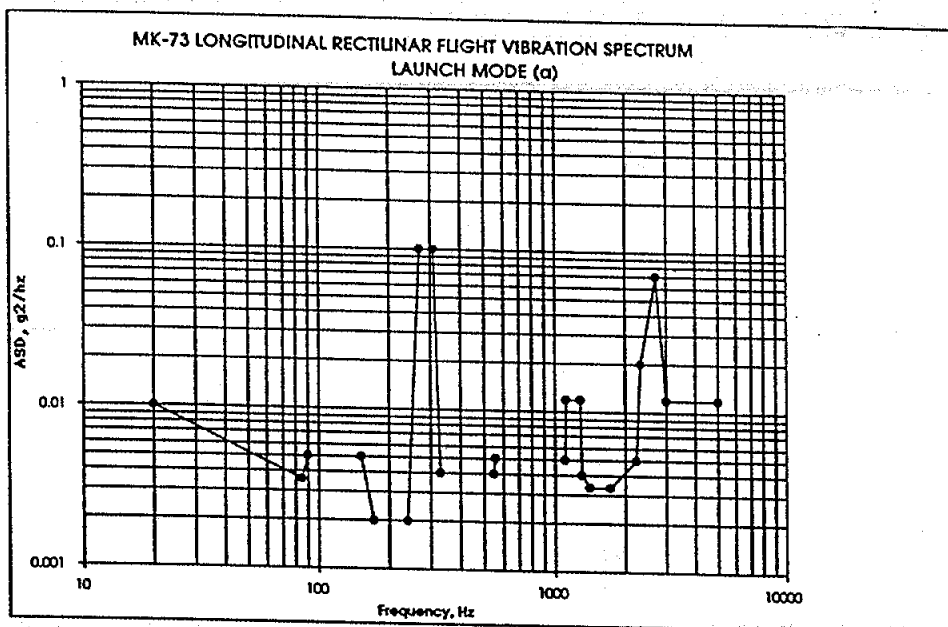
4 of 6

6. (Cont.)

To:

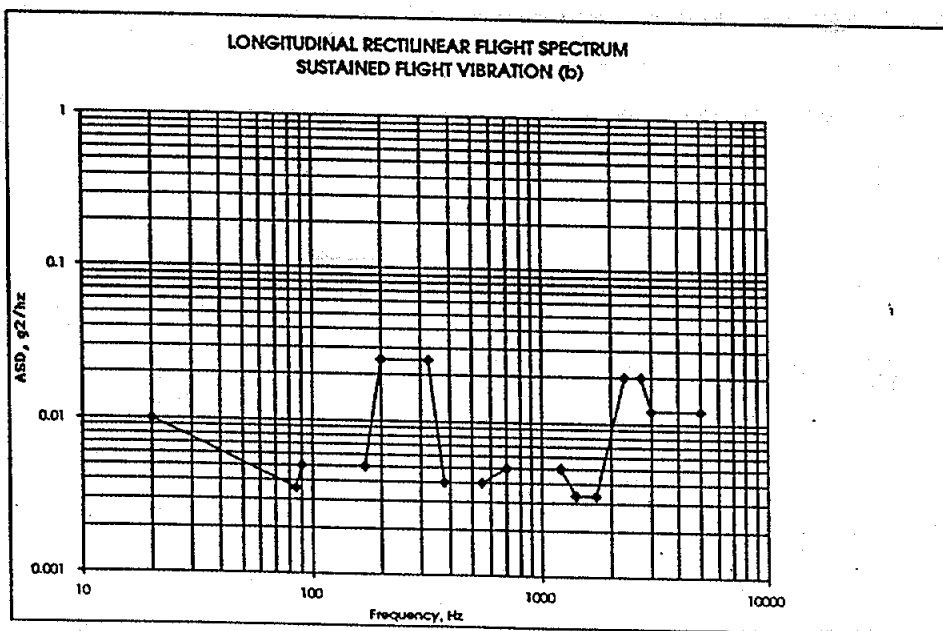
| BREAKPOINTS | |
|-------------|--------------------------|
| Freq (Hz) | ASD (g ² /hz) |
| 20 | 0.0100 |
| 85 | 0.0036 |
| 90 | 0.0050 |
| 150 | 0.0050 |
| 170 | 0.0020 |
| 240 | 0.0020 |
| 270 | 0.1000 |
| 310 | 0.1000 |
| 330 | 0.0040 |
| 550 | 0.0040 |
| 560 | 0.0050 |
| 1100 | 0.0050 |
| 1120 | 0.0120 |
| 1280 | 0.0120 |
| 1300 | 0.0040 |
| 1400 | 0.0034 |
| 1700 | 0.0034 |
| 2200 | 0.0050 |
| 2300 | 0.0200 |
| 2700 | 0.0700 |
| 3000 | 0.0120 |
| 5000 | 0.0120 |

Grms 8.16



| BREAKPOINTS | |
|-------------|--------------------------|
| Freq (Hz) | ASD (g ² /hz) |
| 20 | 0.0100 |
| 85 | 0.0036 |
| 90 | 0.0050 |
| 170 | 0.0050 |
| 200 | 0.0250 |
| 325 | 0.0250 |
| 380 | 0.0040 |
| 550 | 0.0040 |
| 700 | 0.0050 |
| 1200 | 0.0050 |
| 1400 | 0.0034 |
| 1700 | 0.0034 |
| 2300 | 0.0200 |
| 2700 | 0.0200 |
| 3000 | 0.0120 |
| 5000 | 0.0120 |

Grms 7.29



NOTE: APPLY SPECTRA SHOWN IN (a) for 10 ± 1 SECONDS FOLLOWED BY SPECTRA SHOWN IN (b) FOR 320 ± 3 SECONDS.

TOLERANCE ON SPECTRA = ± 2 DECIBELS

FIGURE 8. Longitudinal Rectilinear Flight Vibration Spectrum.
(a) Launch Mode Vibration. (b) Sustained Flight Vibration

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NAWCWPNDIV (MIL-STD-973/931025)

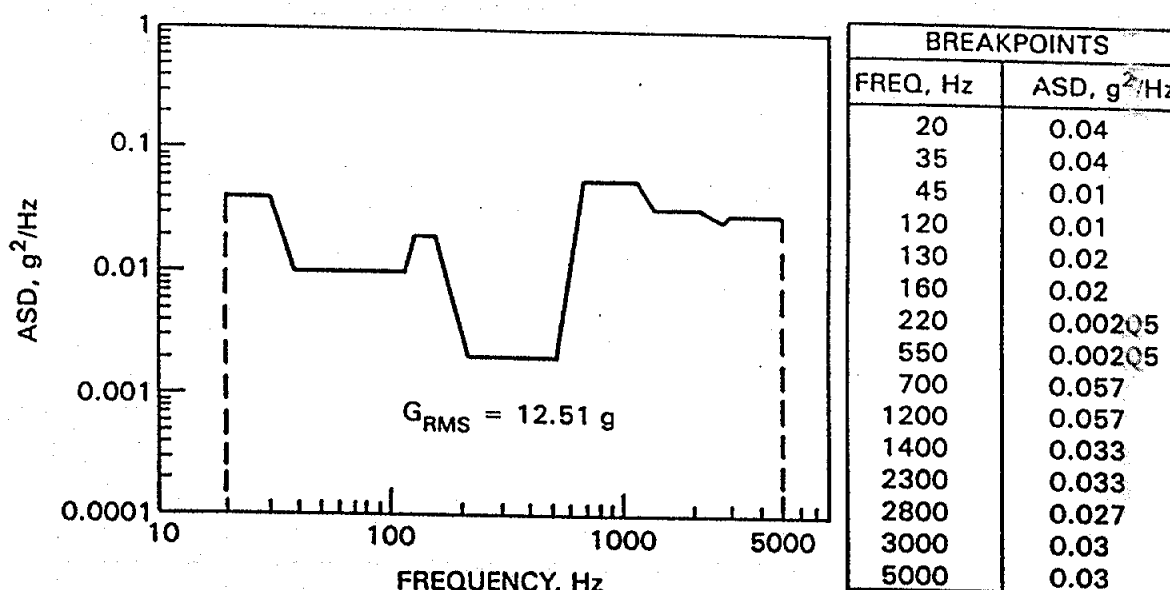
DOCUMENT NO.
WS-32616

NOR NO.
16218.1

SHEET
5 OF 6

7. Page 24, Figure 9, change

From:



NOTE: APPLY SPECTRA SHOWN ± 2 DECIBELS FOR 330 ± 3 SECONDS

FIGURE 9. Radial Rectilinear Flight Vibration Spectrum.

NOTICE OF REVISION (NOR) CONTINUATION SHEET

NAWCWPNDIV (MIL-STD-973/931025)

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16218.1

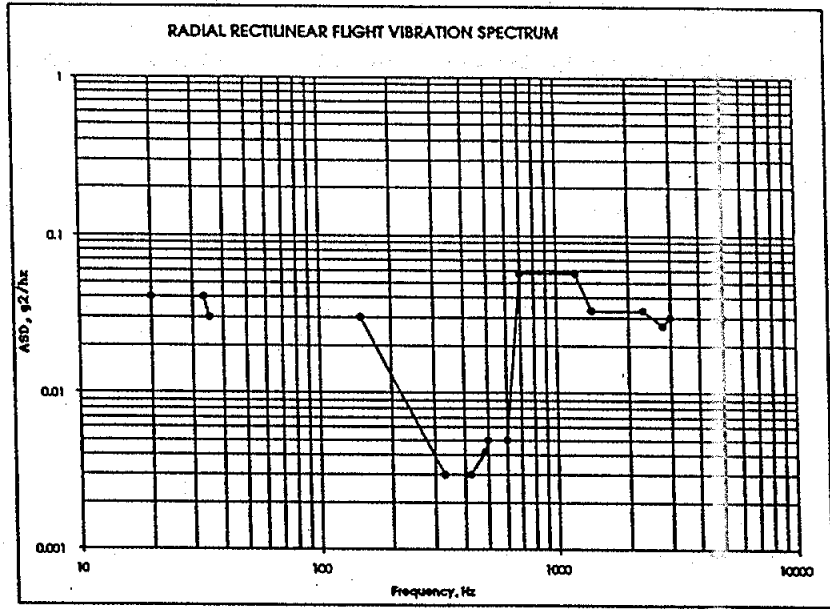
SHEET
6 of 6

7. (Cont.)

To:

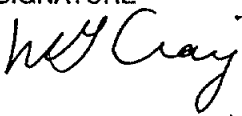
| BREAKPOINTS ¹ | |
|--------------------------|--------------------------|
| Freq (Hz) | ASD (g ² /hz) |
| 20 | 0.04 |
| 33 | 0.04 |
| 35 | 0.03 |
| 150 | 0.03 |
| 330 | 0.003 |
| 420 | 0.003 |
| 490 | 0.0042 |
| 500 | 0.005 |
| 600 | 0.005 |
| 700 | 0.057 |
| 1200 | 0.057 |
| 1400 | 0.033 |
| 2300 | 0.033 |
| 2800 | 0.027 |
| 3000 | 0.03 |
| 5000 | 0.03 |

Gms 12.52



NOTE: APPLY SPECTRA SHOWN ± 2 DECIBELS FOR 330 ± 3 SECONDS

FIGURE 9. Radial Rectilinear Flight Vibration Spectrum.

| | | | | | | | | |
|---|-----------------------|---------------------------------|---|--------------------------|------------------------------------|--------------------------------------|---------------------------------|--|
| SPECIFICATION CHANGE NOTICE (SCN) | | | 1. DATE (YYMMDD) 98/11/24 | | FORM APPROVED OMB No. 0704-0188 | | | |
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| | | | | | 3. DODAAC | | | |
| 4. ORIGINATOR | | | 5. SCN TYPE | | | | | |
| a. TYPED NAME (First, Middle Initial, Last) NAVAL AIR WARFARE CENTER WEAPONS DIVISION | | | X PROPOSED | | <input type="checkbox"/> APPROVED | | | |
| b. ADDRESS (Street, City, State, Zip Code) CODE 47GN00D CHINA LAKE, CALIF 93555-6100 | | | 6. CAGE CODE 53711 | | 7. SPEC. NO. WS-32616 | | | |
| | | | 8. CAGE CODE 12934 | | 9. SCN NO. 5 | | | |
| 10. SYSTEM DESIGNATION STANDARD Missile | | 11. RELATED ECP NO. 16218 | | 12. CONTRACT NO. N/A | | 13. CONTRACTUAL AUTHORIZED N/A | | |
| 14. CONFIGURATION ITEM NOMENCLATURE CRITICAL ITEM PRODUCT FABRICATION SPECIFICATION FOR BOOSTER, FUZE, MK 73 MOD 0 | | | | 15. EFFECTIVITY N/A | | | | |
| This notice informs recipients that the specification identified by the number (and revision letter) shown in item 7 has been changed. The pages changed by this SCN are those furnished herewith and carry the approval date of the related ECP listed in item 11. The pages of the page numbers and dates listed in items 16 and 17, combined with non-listed pages of the original issue of the revision shown in item 7, constitute the current approved version of this specification. | | | | | | | | |
| 16. PAGES AFFECTED BY THIS SCN | | | | | | | | |
| PAGE(S) a. | | | | | TYPE OF CHANGE* b. | | APPROVAL DATE (YYMMDD) c. | |
| 2, 5, 13, 23 & 24 | | | | | S | | | |
| 17. SUMMARY OF PREVIOUSLY CHANGED PAGES | | | | | | | | |
| SCN NO. a. | RELATED ECP NO. b. | PAGE(S) c. | DATE SUBMITTED (YYMMDD) d. | TYPE OF CHANGE* e. | APPROVAL DATE (YYMMDD) f. | | | |
| 1 | 14255 | 23 & 24 | | S | 91/02/20 | | | |
| 2 | 14282 | 3, 4, 5 & 11 | | S | 91/06/27 | | | |
| 3 | 16203 | 2, 3, 4, 5, 11 & 16 5a & 11a | | S A | 93/01/14 | | | |
| 4 | 16212 | 4, 11, 19 & 21 | | S | 95/03/22 | | | |
| * "S" Indicates supersedes earlier page. "A" indicates added page. "D" indicates deletion. | | | | | | | | |
| 18.a. GOVERNMENT ACTIVITY NAWCWPNSDIV, CHINA LAKE, CA 93555-6100 | | | c. SIGNATURE  | | | d. DATE SIGNED (YYMMDD) 990420 | | |
| b. TYPED NAME (First, Middle Initial, Last) Glenn Craig | | | | | | | | |

DD Form 1696, Apr 92

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Military

| | |
|---------------|---|
| MIL-STD-129 | Marking for Shipment and Storage |
| MIL-STD-331 | Fuze and Fuze Components, Environmental and Performance Tests for. |
| MIL-STD-414 | Sampling Procedures and Tables for Inspection by Variables for Percent Defective. |
| MIL-STD-453 | Inspection, Radiographic. |
| MIL-STD-810D | Environmental Test Methods and Engineering Guide Lines. |
| MIL-STD-831 | Test Reports, Preparation of. |
| MIL-STD-45662 | Calibration Systems Requirements |

DRAWINGS

Naval Air Systems Command (Code Ident 30003)

| | |
|------------|---------------------------------|
| LM 1635922 | Lead, Explosive, MARK 8 MOD 0. |
| LM 3300320 | Lead, Explosive, MARK 12 MOD 2. |

Naval Sea Systems Command (Code Ident 53711)

| | |
|------------|---------------------------|
| DL 6503332 | Booster, Fuze MK 73 MOD 0 |
| SA 2875551 | Vibration Test Adapter. |
| SA 6503340 | Block, Test Initiation. |

3.2.2.5 Pellet housing. The housing cup shall be in accordance with Drawing 6503336.

3.2.2.6 Retaining ring. The retaining ring shall be in accordance with Drawing 6503346.

3.2.2.7 Identification plate. The identification plate shall be in accordance with Drawing 6503333.

3.2.2.8 Vibration Isolator Assembly. The vibration isolator assembly shall be in accordance with Drawing 6503335.

3.2.2.9 Frame vibration isolator. The frame vibration isolator shall be in accordance with Drawing 6503339.

3.2.2.10 Ring vibration isolator. The ring vibration isolator shall be in accordance with Drawing 6503340.

3.2.3 Radiographic inspection. The booster shall be free from defects such as cracks, voids, fissures, or low density areas when radiographed in accordance with 4.4.3.

3.2.4 Environmental. The booster shall not be damaged, nor shall safety or subsequent performance be degraded by exposure to any natural combination of service use environments. These shall include, but shall not be limited to, the following environments:

3.2.4.1 Transportation vibration-temperature (nondestructive). The booster shall meet the requirements of MIL-STD-331, Test 124, Procedure I, except the test durations and temperatures shall be as indicated in 4.4.4.1(b) and (c), and shall be safe to handle and shall function with the proper output after the test.

3.2.4.2 Temperature and humidity (nondestructive). The booster shall meet the requirements of MIL-STD-331, Test 105.1, either method, 14-day period, and shall be safe to handle and shall function with the proper output after the test.

3.2.4.3 Missile flight vibration (nondestructive). The booster shall meet the requirements of MIL-STD-810, Method 514.3, Equipment Category 5, Procedure I, except the vibration spectrums shall be as indicated in Figures 8 and 9, and shall be safe to handle and shall function with the proper output after the test.

3.2.4.4 Twelve-meter drop (destructive). When installed in a simulated warhead, the booster shall meet the requirements of MIL-STD-331, Test 103.2, Procedure 1, and shall be safe to handle and dispose of after the test.

- (c) One half of the booster sample shall be preconditioned for a minimum of 2 hours and then tested at a steady-state temperature of $-50^{\circ}\text{F} \pm 3.6^{\circ}\text{F}$ for vibration. The remaining boosters shall be similarly preconditioned and tested at a steady-state temperature of $+170^{\circ}\text{F} \pm 3.6^{\circ}\text{F}$ (see Figure 2). When changing axes, allow 2 minutes reconditioning time for each minute required to change axes, not to exceed two hours.
- (d) Vibrate the boosters 10 seconds for spectrum (a), 320 seconds for spectrum (b) along the X-axis (see Figure 1) in accordance with the spectrum specified on (Figure 8).
- (e) Vibrate the boosters for 330 seconds along the Y-axis (see Figure 1) in accordance with the spectrum specified on (Figure 9).
- (f) Vibrate the boosters for 330 seconds along the Z-axis (see Figure 1) in accordance with the spectrum specified on (Figure 9).

To be acceptable, the booster shall meet the requirements of 3.2.4.3.

4.4.4.4. Twelve meter drop (destructive). The booster shall be installed on inert, dummy, or simulated fuzes which are then installed in inert, dummy, or simulated warheads approved by the procuring activity (see 6.2.1) and shall be tested in accordance with MIL-STD-331, Test 103.2, Procedure 1. Breakage of the explosive pellet, the housing cup, or the presence of loose pieces of explosive in the warhead fuze well shall not be considered criteria for failing the test. To be acceptable, the booster shall meet the requirements of 3.2.4.4.

4.4.4.5 Jolt (destructive). The booster shall be mounted to the vibration test adapter of Drawing SA 2875551 and tested in accordance with MIL-STD-331, Test 101.3, Procedure I. To be acceptable, the booster shall meet the requirements of 3.2.4.5.

4.4.5 Packaging, packing, and marking. Prior to shipment, packaging, packing, and marking shall be examined to ensure conformance to the requirements of Section 5.

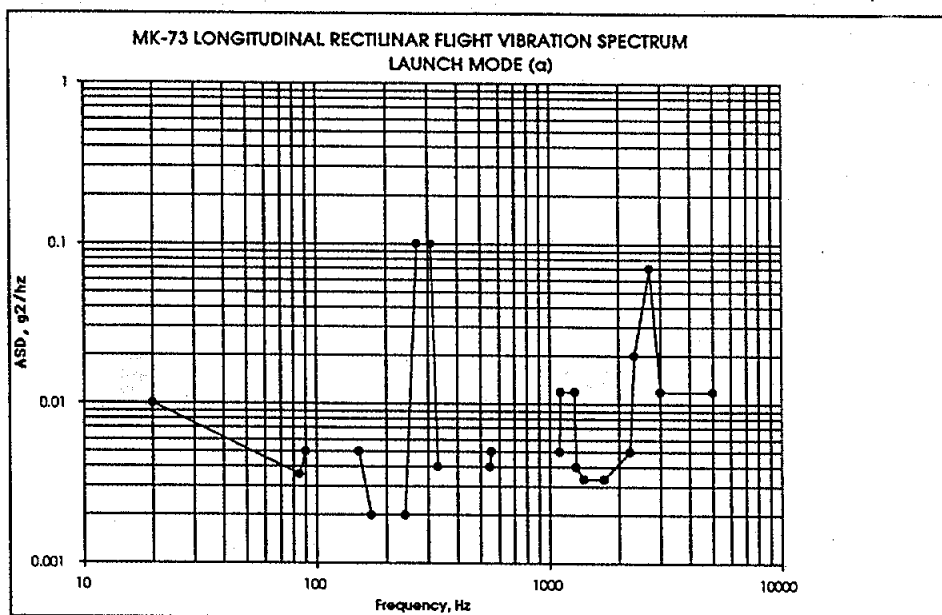
5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging. Preservation and packaging shall be in accordance with Drawing 6503337.

5.2 Packing. Packing shall be in accordance with Drawing 6503337.

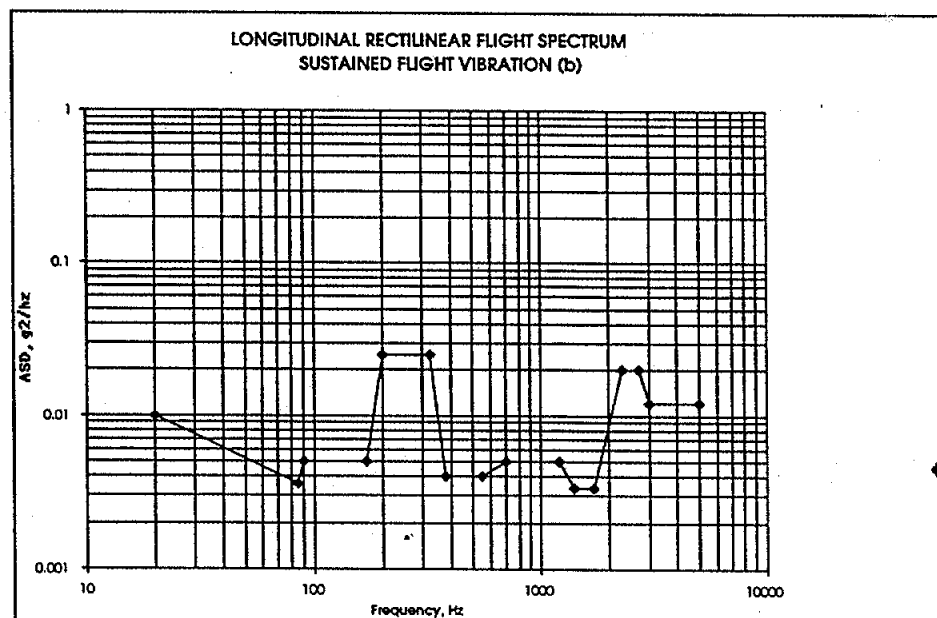
| BREAKPOINTS | |
|-------------|--------------------------|
| Freq (Hz) | ASD (g ² /hz) |
| 20 | 0.0100 |
| 85 | 0.0036 |
| 90 | 0.0050 |
| 150 | 0.0050 |
| 170 | 0.0020 |
| 240 | 0.0020 |
| 270 | 0.1000 |
| 310 | 0.1000 |
| 330 | 0.0040 |
| 550 | 0.0040 |
| 560 | 0.0050 |
| 1100 | 0.0050 |
| 1120 | 0.0120 |
| 1280 | 0.0120 |
| 1300 | 0.0040 |
| 1400 | 0.0034 |
| 1700 | 0.0034 |
| 2200 | 0.0050 |
| 2300 | 0.0200 |
| 2700 | 0.0700 |
| 3000 | 0.0120 |
| 5000 | 0.0120 |

Grms 8.16



| BREAKPOINTS | |
|-------------|--------------------------|
| Freq (Hz) | ASD (g ² /hz) |
| 20 | 0.0100 |
| 85 | 0.0036 |
| 90 | 0.0050 |
| 170 | 0.0050 |
| 200 | 0.0250 |
| 325 | 0.0250 |
| 380 | 0.0040 |
| 550 | 0.0040 |
| 700 | 0.0050 |
| 1200 | 0.0050 |
| 1400 | 0.0034 |
| 1700 | 0.0034 |
| 2300 | 0.0200 |
| 2700 | 0.0200 |
| 3000 | 0.0120 |
| 5000 | 0.0120 |

Grms 7.29



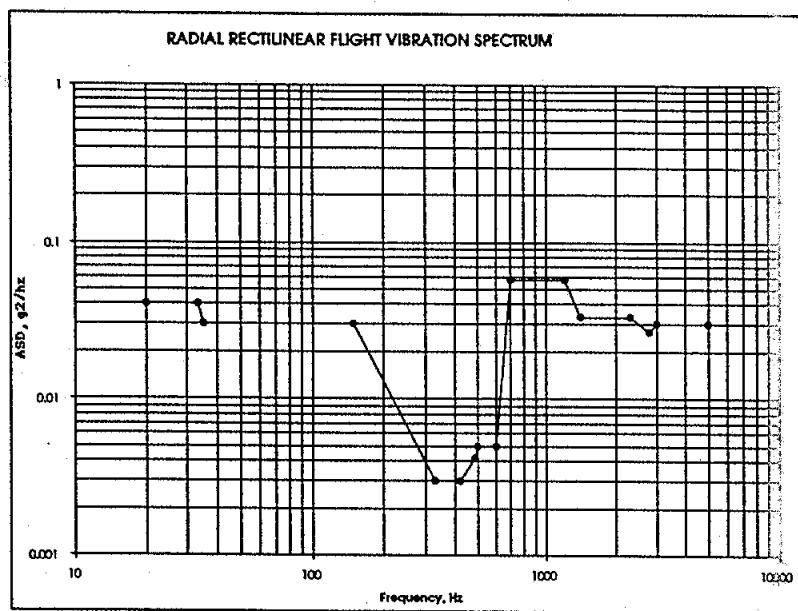
NOTE: APPLY SPECTRA SHOWN IN (a) for 10 ± 1 SECONDS FOLLOWED BY SPECTRA SHOWN IN (b) FOR 320 ± 3 SECONDS.

TOLERANCE ON SPECTRA = ± 2 DECIBELS

FIGURE 8. Longitudinal Rectilinear Flight Vibration Spectrum.
(a) Launch Mode Vibration. (b) Sustained Flight Vibration

| BREAKPOINTS | |
|-------------|--------------------------|
| Freq (Hz) | ASD (g ² /hz) |
| 20 | 0.04 |
| 33 | 0.04 |
| 35 | 0.03 |
| 150 | 0.03 |
| 330 | 0.003 |
| 420 | 0.003 |
| 490 | 0.0042 |
| 500 | 0.005 |
| 600 | 0.005 |
| 700 | 0.057 |
| 1200 | 0.057 |
| 1400 | 0.033 |
| 2300 | 0.033 |
| 2800 | 0.027 |
| 3000 | 0.03 |
| 5000 | 0.03 |

Grms 12.52



NOTE: APPLY SPECTRA SHOWN ± 2 DECIBELS FOR 330 ± 3 SECONDS

FIGURE 9. Radial Rectilinear Flight Vibration Spectrum.